PDAS Appendix B – Landscape and Visual Impact Assessment

Grove Farm Solar, Bentley

Landscape and Visual Impact Assessment

Prepared for

Green Switch CAPITAL

Green Switch Capital Limited

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Document Control

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1.0 INTRODUCTION

1.1.1 This Landscape and Visual Impact Assessment (LVIA) follows best practice guidance set out in Guidelines for Landscape and Visual Impact Assessment, hereafter referred to as the GLVIA.

1.1.2 Landscape and visual effects are separate, although closely related and interlinked issues.

1.1.3 Landscape effects are caused by physical changes to the landscape, which may result in changes to the fabric or distinctive character of that landscape and how it is perceived.

1.1.4 Visual effects are caused by changes to what can be seen by people as a result of what is proposed. A visual assessment assesses the change in visual amenity undergone by people (either individually or in groups) that would arise from any change in the nature of views experienced.

1.1.5 In accordance with guidance set out in the GLVIA, the LVIA adopts an approach proportionate to the likely significant effects of the Proposed Development. The conclusions of the LVIA have been determined via use of professional judgement, set within a structured assessment framework, and supported by reasoned justification.

1.1.6 The LVIA aims to establish the following:

- A clear understanding of the Site and its context, in respect of the physical and perceived landscape and in respect of views and visual amenity;
- An understanding of the Proposed Development in terms of how this would relate to the existing landscape and views;
- An identification of the likely effects of the Proposed Development upon the landscape and upon views, throughout the life-cycle of the Proposed Development;
- Potential for mitigation to reduce / eliminate any potential adverse effect on the landscape or views arising as a result of the Proposed Development; and
- A conclusion as to the residual likely landscape and visual effects of the Proposed Development.

1.1.7 The process follows a standard approach, namely:

- The establishment of the baseline conditions against which the effects of the Proposed Development will be assessed, through the identification of landscape and visual receptors;
- The determination of the sensitivity of the receptor likely to be affected;
- A judgement on the magnitude of impact likely to occur;
- An assessment of whether a significant landscape and visual effect would likely be experienced by any receptor, by considering the predicted magnitude of impact together with the sensitivity of the receptor, taking into account any proposed mitigation measures.

1.1.8 Further details regarding the specific methodologies of assessment and determination of significance are included in Appendix 1. The LVIA has been informed by both desk- and field-based studies.

1.1.9 It should be noted that the landscape (including the context in which views are experienced) is dynamic, i.e. it is affected by social, economic, technological and climatic changes, all of which can influence patterns of land use, land cover and land management. As such, the baseline context for the LVIA is not static.

Competence

1.1.10 The LVIA was undertaken by a Chartered Member of the Landscape Institute (CMLI) with over nine years' experience in the landscape and visual assessment of major infrastructure projects. The LVIA was directed and reviewed by a second CMLI with over twenty-five years' similar experience.

2.0 PROPOSED DEVELOPMENT

2.1.1 The Proposed Development would include the following elements:

- Photovoltaic Solar Panels and associated support frames;
- String inverters
- Transformer Stations;
- 1 No. Distribution Network Operator (DNO) Substation;
- 1 No. Customer Substation;
- 1 No. Control Centre Building;
- 1 No. Spares Container;

- c.2.2km of new/resurfaced internal access tracks (3.5 m wide and constructed using compacted Type 1 stone);
- c.3.6km deer/stock fencing;
- c. 10.7 hectares of species-rich grassland;
- c. 34.4 hectares of grazed pasture;
- c.2,600m^2 native species woodland;
- c.2,500m native species hedgerow; and
- 139 no. individual hedgerow trees.

2.1.2 A complete description of the Proposed Development and the above elements is provided in the Planning, Design & Access Statement accompanying this planning application.

2.1.3 The Proposed Development would have an operational life of forty years, at which point it would be decommissioned. The solar arrays, access tracks, fencing, substations and access tracks would be removed at the point of decommissioning. The proposed planting would be retained post-decommissioning.

3.0 METHODOLOGY AND SCOPE OF ASSESSMENT

3.1 Planning Policy

3.1.1 Details of the planning and policy background for the Proposed Development, including an appraisal of effects on relevant landscape-related policies (as set out in the adopted Statutory Development Plan) are included in the Planning Statement. Key legislation and policies relevant to the LVIA are summarised below.

National Planning Policy Framework

3.1.2 Section 15 of the National Planning Policy Framework (NPPF) is concerned with the conservation and enhancement of the natural environment and includes policies most directly applicable to the assessment of landscape and visual effects. In particular:

- Paragraph 174 requires planning decisions to contribute to the protection of valued landscapes, biodiversity interest, and the character and beauty of the countryside.
- Paragraph 185 which requires new development to protect tranquil areas and limit the impact of pollution on living conditions and the natural environment.

Babergh and Mid Suffolk Joint Local Plan Part 1 (Consolidated Modifications Document

3.1.3 The Babergh and Mid Suffolk Joint Local Plan (JLP) was adopted in November 2023. The following policies from the JLP are relevant to this LVIA:

- JLP Policy LP17 Landscape – requires development to conserve and enhance landscape character through sensitive design within the natural and build landscape, and to be sensitive to visual amenity impacts. The Policy also requires a LVIA to be submitted that identifies ways of avoiding, reducing and mitigating adverse effects and opportunities for enhancement.
- JLP Policy LP24 Design and Residential Amenity – requires development to be of a high quality design that responds to local and wider landscape and townscape qualities, and retains and protects important natural features.
- JLP Policy 25 Energy Sources, Storage and Distribution – supports renewable energy development providing the impact on landscape has been taken into consideration and where appropriate, effectively mitigated.

Bentley Neighbourhood Plan 2018 - 2037

3.1.4 The following policies of the Bentley Neighbourhood Plan 2022 are relevant to this LVIA:

- Policy BEN 3 Development Design – lists criterion that development proposals should satisfy including respecting the qualities and character of the landscape.
- Policy BEN 7 Protecting Bentley's Landscape Character – requires development to be supported by a Landscape and Visual Impact Assessment to demonstrate it there is no unacceptable harm to landscape character as identified in the Bentley Landscape Appraisal.

3.1.5 It should be noted that Policy BEN 3 requires the protection of important views in the Parish, which are identified on the Neighbourhood Plan Policies Map. The Site would not be visible in any of the views identified in the Neighbourhood Plan.

3.2 Assessment Methodology

3.2.1 As noted in Section 1, this LVIA has followed a methodology which has been developed using the published good practice guidelines set out in the GLVIA. The detailed methodology followed in undertaking the LVIA is set out in Appendix 1.

3.2.2 The LVIA also follows the Landscape Institute's current guidance regarding the production of photographic material. The methodology followed in the production of this visualisation material is set out in Appendix 2.

3.3 The Site

3.3.1 The Application Site is located to the north of the village of Bentley, within the administrative area of Babergh District. The Application Site includes the land required for:

- the proposed solar array, associated infrastructure and landscaping;
- the Distribution Network Operator (DNO) substation at the point of connection with the National Grid;
- the grid connection between the solar array and the DNO substation; and
- the access tracks from the public highway to the proposed solar array and DNO substation.

3.3.2 For the purpose of this LVIA the Application Site is referred to as the 'Main Site' when considering the land required for the proposed solar farm and access track from Station Road, and the 'Substation Site' when considering the land required for the DNO substation, grid connection and associated access track.

3.3.3 The Site location is demarcated on Figure 1.

3.4 Study Area

3.4.1 The purpose of a study area is to identify the area from which there is likelihood for significant landscape or visual effects.

3.4.2 To inform the extent of the study area, a zone of theoretical visibility (ZTV) for the Proposed Development was established. ZTVs form a good starting point for determining a study area as whilst the Proposed Development may be perceived from beyond a ZTV or study area, this would unlikely be to an extent that there is the potential for significant landscape or visual effects.

3.4.3 The first ZTV on Figure 2 models the visibility of the 'Main Site' based on a Digital Surface Model (DSM) which reflects the presence of vegetation, buildings and other structures in the landscape; as such it is considered to be a reasonably realistic representation of where the Proposed Development is likely to be visible from. The

ZTV is based on a series of points dispersed evenly across the Site in an approximately 100m grid, and therefore shows not only where the Proposed Development may be visible from, but also what proportion of the overall development may be visible from a single location. Accordingly, this helps to identify areas where the whole site may be visible from, compared to areas where only part of the site may be visible from.

3.4.4 The second ZTV on Figure 3 models the visibility of the 'Substation Site' using the same DSM as used for the Main Site. The Substation Site ZTV is based on a single point in the location of the DNO substation and as such is not differentiated in the same way as the ZTV for the Main Site to give anticipated percentage visibility.

3.4.5 The methodology for the ZTVs are set out in the notes on Figures 2 and 3, along with a summary of the process in Appendix 2.

3.4.6 As demonstrated by the ZTV on Figure 2, the Main Site benefits from a strong level of enclosure and there is limited visibility of the Site from beyond the Site boundaries. As indicated by the ZTV, areas of visibility to the south and east relate to narrow gaps in boundary vegetation. There would be no intervisibility with the Suffolk Coast and Heaths AONB.

3.4.7 The ZTV on Figure 3 demonstrates that the location of the proposed DNO substation is of limited visibility due to its low-lying position in a valley landform, and the extent of tree and hedgerow cover along local field boundaries and roads. As indicated by the ZTV, the extent of visibility approximately relates to the field in which the DNO substation is located, with some visibility bleeding through hedgerows to the east at gaps in vegetation.

3.4.8 Fieldwork was undertaken in Summer 2022 and Winter 2022/23 to review the ZTV against the actual visibility of the Site and fix the study area for assessment.

3.4.9 The study area for the LVIA reflects the limited visibility of the Site in the wider landscape, and has been set at up to approximately 1km from the Main Site boundary in response to the Site's overall limited visibility. The LVIA study area covers the full extent from which the Main Site and the Substation Site could be visible.

3.4.10 The LVIA study area is shown on Figure 4.

3.5 Assessment of Significance / Assessment Criteria

3.5.1 Not all landscape and visual effects arising as a result of a particular proposal will be significant. Furthermore, where likely significant environmental effects are predicted, this does not automatically mean that such effects are unacceptable. The acceptability of landscape and visual effects is a matter to be weighed in the planning balance alongside other factors. What is important is that the likely effects of any proposal are transparently assessed and described in order that the relevant determining authority can bring a balanced and well-informed judgement to bear as part of the decision-making process.

3.5.2 In the case of development (such as that proposed) that does not require Environmental Impact Assessment, there is no requirement to state whether an effect is significant or not. However, it is considered likely to be of assistance to the decision-maker if such a statement is included.

3.5.3 The judgement in relation to this LVIA is that a greater than 'moderate' level of effect is more likely to be significant. This is because such an effect would generally result from larger magnitudes of change on higher sensitivity receptors. This does not preclude a 'moderate' effect or lower being significant, or a greater than 'moderate' effect not being significant. The professional judgement made will depend on the specific circumstances being considered. Refer to Appendix 1 for further details.

3.6 Limitations

3.6.1 The fieldwork and photography has been undertaken from publicly accessible areas, i.e. public rights of way (PRoW), or pavements adjacent to residential properties, or roads. As viewpoint photography has not been undertaken from private properties, professional judgement has been used to assess the potential effect to these private receptors where applicable.

3.6.2 The assessment of operational impacts in the short-term (Year 1) assumes that:

- Areas of grass or wildflower seeding have established;
- Hedgerow planting will be between 0.5m and 1m in height;
- Hedgerow trees would be between 1.5m and 2.5m in height; and
- Woodland planting would be between 0.5m and 2.2m in height.

3.6.3 The assessment of operational impacts in the long-term (Year 10) assumes that:

- The areas of proposed landscaping will have successfully established as a result of maintenance actions to be agreed by a landscape and ecological management plan;
- Hedgerows will have grown to approximately 3m in height;
- Hedgerow trees will have grown to between 5m and 7.5m in height; and
- Woodland areas will have grown to between 5m and 7.5m in height.

4.0 BASELINE CONDITIONS

4.1 Data Collection

4.1.1 Baseline data for the LVIA has been gathered by both desk- and field-based surveys. This has included a review of extant landscape character assessment studies and field visits to gain an understanding of the landscape and visual context of the Site.

4.2 The Site and its Surroundings

The Site

Main Site

4.2.1 The Main Site comprises two arable fields located north of the village of Bentley, with access through Grove Farm from Station Road to the west. The fields are separated by a road (Church Road) and are part of the same farm system, managed by a single landowner.

4.2.2 To the north and south of the Main Site is scattered and dispersed rural settlement associated with Bentley Hall to the north, and Bentley to the south. To the east and west of the Main Site is open agricultural land interspersed with blocks of woodland. The Great Eastern Main Line railway forms the easternmost boundary of the Main Site.

4.2.3 The Main Site benefits from a strong level of enclosure, with mature hedgerows, woodland and other vegetation within Site boundaries. There are intermittent gaps in this vegetation at field access points or in places where the hedgerows have become top-heavy and gappy. Part of the Site boundary to the north-west is formed by Engry Wood ancient woodland.

4.2.4 The topography of the Main Site is relatively flat with a gentle fall from west to east. At the eastern end of the Main Site the landform falls away slightly more sharply

towards the railway line to the east. The Main Site generally lies between 35m and 40m above ordnance datum (AOD).

Substation Site

4.2.5 The Substation Site comprises the western edge of two arable fields to the eastern side of the Great Eastern Main Line railway. The Substation Site is connected to the Main Site by a crossing of the railway line, and is accessed via an access track to a road to the north.

4.2.6 The Substation Site links to a high voltage pylon in an area of open wooded habitat mosaic to its south, with the pylon being the Point of Connection for the solar farm.

4.2.7 The closest residential property to the Substation Site is Maltings House approximately 250m to the east.

4.2.8 The Substation Site sits between the Great Eastern Main Line to its east and a parallel line of high voltage pylons which is just to its east. A separate line of electricity pylons sits perpendicular to the Site crossing the access track between the Point of Connection to the south and the road to the north. A public footpath follows the line of these electricity pylons between woodland to the west of the railway line, and Maltings House to the east.

4.2.9 The topography of the Substation Site is generally flat along the access track, with the location of the proposed DNO substation sitting within a depression on the eastern side of a narrow valley that separates the Main Site and the Substation Site. The access track is at approximately 36-38m AOD, and the location of the DNO substation within the Substation Site is between approximately 31-33m AOD.

Study Area Context

Topography and Hydrology

4.2.10 As shown on Figure 5, the Site lies across an elevated plateau between approximately 35m and 40m AOD to the west of the upper reaches of a narrow valley formed by a small stream that flows north-south towards the Stour Estuary. This narrow valley lies between the Main Site and Substation Site with the base of the valley at approximately 25m AOD. The landscape east and west of the valley are at a broadly similar elevation.

4.2.11 To the north, south and west of the Site the land is gently undulating at a similar elevation to the Site, rising gently towards the west and falling gently to the east towards Alton Water Reservoir, approximately 1.1km east of the Site.

Vegetation Patterns

4.2.12 The Site has a high degree of enclosure due to the extent of woodland and mature hedgerows in field boundaries and alongside roads and footpaths. The wider landscape around the Site is characterised by a more open medium- to large-scale field pattern often with open field boundaries rather than hedgerows, which enhances a perception of openness.

4.2.13 The narrow valley to the east of the Site is characterised by blocks of woodland, scrub and woodland clumps following the sinuous watercourse. Belts of mature trees and woodland also follow the alignment of the Great Eastern Main Line, and a now defunct former railway spur to the north of the Site.

4.2.14 To the north of the Site around St Mary's Church, Bentley Hall and Bentley Park there are more formal vegetation patterns that relate to historic parkland and formal gardens associated with estates. These vegetation patterns create a sense of intimacy in the local landscape here, and increase the perceived separation between the Site and Bentley Hall.

4.2.15 The village of Bentley to the south has a hedgerow with trees along its northern boundary which provides a strong demarcation between the village and the fields to its north. This boundary supports the separation between Bentley and Potash along the southern boundary of the Site.

4.2.16 Analysis of historic mapping reveals that there has been a gradual erosion in field boundaries over the past century, and that this includes the removal of several hedgerows within the Site. The result of these field boundary removals is the open medium-large scale field pattern that is evident today.

Settlement and Land Use

4.2.17 The Site lies approximately 0.5km north of the village of Bentley, and adjoins a small hamlet to the village of Bentley identified on the Ordnance Survey map as Potash.

4.2.18 To the north of the Site lies St Mary's Church, Bentley Hall and Bentley Park which are separated from the village of Bentley by Potash and an area of open arable

farmland that includes the Site. The line of the now defunct railway passes centrally through this group of buildings and separates St Mary's Church from Bentley Hall and Bentley Park. This line is now disused but remains a somewhat incongruous linear feature within the local landscape.

4.2.19 Land use in the study area is predominantly either arable farmland or woodland, with dispersed estates and farmsteads. The biggest land-use in the wider area is the Alton Water reservoir approximately 1.1km east of the Site. The reservoir was opened in the 1980s.

Roads and Public Rights of Way

4.2.20 The Main Site is accessed via the A12 trunk road, a dual carriageway that lies approximately 1km west of the Site and connects the towns of Ipswich and Colchester. The closest junction to the Site is at Capel St Mary, also approximately 1km north-west of the Site. From here, access is along Station Road and then a farm access track owned by the landowner that gives access to the Site from Potash Lane. The east and west parts of the Main Site are separated by Church Road, which connects Bentley with Potash and Bentley Hall. Church Road is locally designated as a Quiet Lane. Potash Lane follows the southern boundary of the Site connecting Church Lane with Grove Farm. The Main Site is not crossed by any public rights of way aside from Church Lane that passes between the east and west of the Site.

4.2.21 The Substation Site is accessed via a junction with the A137 to the east, with a local road connecting the A137 to the proposed access track near to the Great Eastern Main Line. The Substation Site is crossed by a public footpath (FP 18) on an east-west axis.

4.2.22 There is generally good public access across the study area using the local public right of way network, with footpaths and local roads providing connectivity.

Designations

4.2.23 The Site and Study Area are not covered by any statutory landscape designations. The closest statutory landscape designation is the Suffolk Coast and Heaths AONB which is approximately 1km to the south, and from which there is no intervisibility with the Site.

4.2.24 Babergh District previously maintained a local Special Landscape Area (SLA) designation that covered the study area, identified as the Dodnash SLA. The SLA designation has been removed by the now adopted Joint Local Plan. The SLA designation no longer be extant, but nonetheless gives an indication of the local landscape qualities.

4.2.25 There are no conservation area designations within the study area. St Mary's Church to the north of the Main Site is a grade II* listed building, with Bentley Hall further to the north also designated grade II*, and Bentley Hall Barn to the north-east of Bentley Hall designated grade I. To the east of the Substation Site, Maltings House is a grade II listed building.

4.2.26 Engry Wood to the north-west boundary of the Main Site is designated Ancient Woodland.

4.3 Landscape Character

National Character Areas

4.3.1 159 National Character Areas (NCA) have been identified across England by Natural England. Their broad geographic reach means that the key characteristics identified as typical of a particular character area may not necessarily apply to a specific location within that character area.

4.3.2 The Site and Study Area are located within NCA 82 Suffolk Coast and Heaths which is a broad NCA covering much of the coastline and hinterlands of East Suffolk.

4.3.3 NCA 82 extends along the coast in an open but narrow band with the landscape mainly flat or gently rolling, with changes in relief slight but enough to provide an intimate scale. The NCA is noted as having few commanding viewpoints, which limits the scope of inland views. It is described as one of the driest parts of the country, with local rainfall typically only two-thirds of national average. Settlement patterns are described as sparse, consisting mainly of small villages and iconic coastal market towns, but with rich archaeology providing evidence of a long history of settlement and significant past wealth and importance.

4.3.4 Natural England identify Statements of Environmental Opportunity (SEO) for each NCA across England. Relevant SEO for NCA 88 include:

SEO 2: Manage the components of characteristic productive agricultural landscapes to benefit food production, biodiversity and soil and water quality. Promote sustainable farming practices that are able to adapt to changing agricultural economics, the considerable challenges of climate change and water availability.

4.3.5 The Site and study area are partially representative of the characteristics of the NCA.

Regional Landscape Character

4.3.6 The East of England Landscape Framework comprises a range of information sources aimed at aiding the planning and management of landscape, both urban and rural, in the East of England region. It includes a consistent, integrated landscape typology, which forms a structured, spatial framework for describing and evaluating the countryside.

4.3.7 The Site is located across three Regional Landscape Character Types (RLCT) as shown on Figure 6. These are:

- RLCT 9 Wooded Plateau Farmlands;
- RLCT 12 Valley Settled Farmlands; and
- RLCT 16 Wooded Plateau Claylands.

4.3.8 The descriptions for each of these RLCTs are included as Appendix 3 of this LVIA.

County Landscape Character

4.3.9 At a local level, each of the District Councils and the County Council of Suffolk have jointly prepared the Suffolk Landscape Character Assessment, which was published in 2008.

4.3.10 The Suffolk Landscape Character Assessment subdivided the county into a series of landscape character types (LCTs). The boundaries of the Suffolk LCTs relate closely to the boundaries of the RLCT identified in the regional East of England Landscape Framework.

4.3.11 The Site is located within three Suffolk LCTs:

- Ancient Plateau Farmlands;
- Rolling Valley Farmlands LCT; and
- Ancient Plateau Claylands LCT.

4.3.12 The key characteristics, visual experience and relevant management guidelines for each of these LCT are summarised below.

Ancient Estate Farmlands LCT

4.3.13 The Ancient Estate Farmlands Landscape Character Type (LCT) is described as a plateau of easily farmed rich loams with a planned estate layout and blocks of ancient woodland. The key characteristics of this LCT are:

- Flat central spine of land, with sloping sides dissected by river valleys;
- Deep loamy soil that originated as wind-blown sediments from glacial sources;
- Large-scale arable blocks divided into rectilinear fields;
- Substantial number of ancient woodlands;
- Suckering elm hedges with pollard oaks; also holly hedges;
- Network of parks and designed landscapes;
- Nucleated villages, but with some dispersed farmsteads and clusters of houses; and
- Localised development pressures.

4.3.14 The visual experience of this LCT is described as usually open, but with views occasionally contained by woodland. Woodland is noted as a strong feature of views within the landscape, as is infrastructure such as the A14 trunk road and the Port of Felixstowe.

4.3.15 The LCT is identified as generally maintaining its character and condition, although there are some development pressures around transport links.

4.3.16 The guidance for various types of development coming forward in the LCT does not include for solar photovoltaic land uses; likely as this type of development was not common at the time the guidance was produced. Relevant guidance that could be employed from other forms of development include:

- Reinforce the historic pattern of regular boundaries;
- Maintain, enhance and restore locally distinctive holly hedges; and
- Restore maintain and enhance the network of tree belts and pattern of small plantations.

Ancient Estate Claylands LCT

4.3.17 The Ancient Estate Claylands LCT is described as a gently rolling heavy clay plateaux with ancient woodland and parklands. The key characteristics of this LCT are:

- Dissected Boulder Clay plateau;
- Organic pattern of field enclosures;
- Straight boundaries where influence of privately owned estates is strongest;
- Enclosed former greens and commons;
- Parklands;
- WWII airfields;
- Villages with dispersed hamlets and farmsteads;
- Timber framed buildings;
- Distinctive estate cottages; and
- Ancient semi-natural woodland.

4.3.18 The visual experience of this LCT is noted for having views which are open and long as a result of the plateau landform, and despite the well-wooded characteristics of the area, but with more intimate visual areas as a result of the comprehensive network of winding lanes and tall hedges.

4.3.19 The LCT is identified as being subject to considerable change as a result of their relationship with the A12, and the suburbanisation of some rural areas.

4.3.20 The guidance for various types of development coming forward in the LCT does not include for solar photovoltaic land uses, likely as this type of development was not common at the time the guidance was produced. Relevant guidance that could be employed from other forms of development include:

- Opportunities to generate long-term landscape enhancement through extensive hedge planting schemes, which will provide a positive landscape legacy beyond the life of the development;
- Reinforcing the historic pattern of field boundaries and recognising these when restoring and planting hedgerows; and
- Maintaining and increasing the stock of hedgerow trees.

Rolling Valley Farmlands LCT

4.3.21 The Rolling Valley Farmlands LCT is described as gentle valley sides with some complex topography and occasional steep slopes. The key characteristics of this LCT are:

- Gentle valley sides with some complex and steep slopes;
- Deep well drained loamy soils;
- Organic pattern of fields smaller than on the plateaux;
- Distinct areas of regular field patterns;
- A scattering of landscape parks;
- Small ancient woodlands on the valley fringes;
- Sunken lanes;
- Towns and villages with distinctive mediaeval cores and late medieval churches;
- Industrial activity and manufacture, continuing in the Gipping valley; and
- Large, often moated, houses.

4.3.22 The visual experience of this LCT is noted as "*a rich and varied landscape with it's concentration of prosperous mediaeval towns and villages, contrasting with the smaller and less glamorous settlements of the surrounding plateaux. The steeper valleys and sunken lanes contrast clearly to most of the other valley networks in the county.*"

4.3.23 The LCT is described as retaining much of its historic patterns, of both the agricultural and built environment. The Stour valley and its tributaries are noted as having been subject to some gentrification, with significant changes in land use such as the increase in horse pastures and loss of commercial orchard production.

4.3.24 The guidance for various types of development coming forward in the LCT does not include for solar photovoltaic land uses, likely as this type of development was not common at the time the guidance was produced. Relevant guidance that could be employed from other forms of development include:

- Reinforce the historic pattern of sinuous field boundaries;
- Recognise localised areas of late enclosure hedges when restoring and planting hedgerows;
- Maintain and increase the stock of hedgerow trees; and

- Increase the area of woodland cover; siting should be based on information from the Historic Landscape Characterisation and in consultation with the Archaeological Service.

District Character

4.3.25 In 2015, Babergh and Mid-Suffolk District Councils issued the Joint Babergh and Mid Suffolk District Council Landscape Guidance document which identifies Landscape Character Areas (LCA) within each of the districts, based on the Suffolk Landscape Character Assessment.

4.3.26 As shown on Figure 7, the Joint Babergh and Mid Suffolk District Council Landscape Guidance identifies the Site as being within:

- LCA 1: Ancient Estate Claylands
- LCA 2: Ancient Estate Farmlands
- LCA 18: Rolling Valley Farmlands

4.3.27 The landscape character, aims, and objectives for each of these LCA are summarised in turn below.

LCA 1: Ancient Estate Claylands

4.3.28 The landscape character of LCA 1 Ancient Estate Claylands is described as:

- Fields are medium to large, and hedges vary from large with a mix of trees and shrubs to single species hedges.
- Blocks of ancient semi-natural woodland are scattered throughout the area, made up of oak, ash, field maple, hornbeam and small leaved lime. In particular there is Raydons Great Wood, Bentley Long Wood and Brockley Wood.
- Small streams and rivers such as Dodnash Brook, Spring Brook and Belstead Brook all provide a physical variation to this landscape.
- In the 20th century the flat landscape at Raydon was utilised for World War II airfields having a significant local visual impact.
- The majority of this landscape character is visually open and expansive; however, there are areas of tall hedges and winding lanes which provide a more quiet and enclosed amenity.

4.3.29 The settlement pattern of the LCA is scattered consisting of various sized small villages, dispersed hamlets and isolated farmsteads. Bentley is described as a more clustered development surrounded by small fields with hedge boundaries and woodland.

4.3.30 The stated aim for the LCA is:

- To retain, enhance and restore the distinctive landscape and settlement character. In particular strengthening the clayland landscape with appropriate planting and safeguarding the settlement pattern.

4.3.31 The stated objectives are:

- To maintain and enhance the landscape area and distinctive settlement pattern, ensuring the sense of separation between settlements is maintained where appropriate; and
- To safeguard the ancient woodlands and hedges.

LCA 2: Ancient Estate Farmlands

4.3.32 The landscape character of LCA 2 Ancient Estate Farmlands is described as:

- This landscape type is only found inland of the Shotley Peninsula which extends from Bentley north to Belstead and Wherstead and south to Holbrook, Harkstead and Shotley and includes Tattingstone Valley now known as the Alton Water reservoir. The character consists of an elongated, elevated and relatively flat central spine with sloping sides where it is dissected by river valleys or meets the Orwell Estuary.
- The quality of the soil for farming had a significant impact on the character of the landscape with the introduction of farms and settlements and the pattern of the land is characterised by large-scale arable blocks divided into rectilinear fields. Agricultural writers of the late 18th and 19th century considered the rich loamy soil as the best in the country. There are some locally distinctive hedges of holly with pollarded oaks, while suckering elm is usually very dominant on the lightest soil.
- The area also has a substantial number of ancient woodlands, some up to 80ha in size. In the west there is the close grouping of Great and Little Martin's Woods, Dodnash Wood and Holly Wood in Bentley; Old Hall Wood on Bentleys northern

boundary close to Spinney Wood and Wherstead Wood, Freston Park, Holbrook Park and Cutler's Wood to the east and smaller wooded areas such as Rence Park, in the south.

- The valley surrounded by Dodnash woods and Martins Glen has considerable scenic value with its variations in land form which is complemented by a mosaic of pasture, heath and woodlands, resulting in a particularly rich landscape.
- The open landscape has retained the influence of the Victorian era with the pattern of the fields, parklands and pockets of woodland providing a strong feature in some areas.

4.3.33 The stated aim for the LCA is:

- To retain, enhance and restore the distinctive landscape and settlement character. In particular safeguarding the Victorian and parkland features of the area.

4.3.34 The stated objectives are:

- To maintain and enhance the landscape and ensuring the sense of separation between settlements is maintained where appropriate;
- To reinforce hedgerows of locally native species, in particular holly, oak and suckering elm;
- To safeguard the ancient woodland and parkland areas; and
- To safeguard the mosaic pattern of pasture, heath and woodlands.

4.3.35 Relevant key design principles are:

- Reinforce and restore or where appropriate create the estate and parkland characteristics in new developments;
- Whenever possible incorporate existing landscape features such as tree belts woodland or hedge lines into the design and layout of development proposals such that the locally characteristic patterns can be retained within new land uses;
- This is quite an open landscape with the potential for any form of development to be visibility intrusive if it has been designed without sufficient, locally appropriate, screening or an appropriate landscape design plan; and
- To maintain the character and condition of the landscape any major developments will enter into a Section 106 Legal Agreement for on and off site

landscaping including enhancing field boundaries with local hedging and tree species.

LCA 18: Rolling Valley Farmlands

4.3.36 The landscape character of LCA 18 Rolling Valley Farmlands is described as:

- The sloping valley sides with easily worked soils are ideal for farming and have been divided up into small and medium sized fields;
- Excavation of minerals is evident with disused chalk pits and lime kilns can be seen throughout this landscape;
- Ancient woodlands exist in small parcels on the upper slopes of the valleys. Two significant woods are the adjacent Lineage Wood and Spelthorn Wood in Long Melford;
- Brett Valley forms a considerable portion of this landscape character. With an open valley appearance there is a concentration of vegetation and unspoilt river meadows near the valley floor and open higher land, with occasional woodland areas contributing to the visual quality of this landscape;
- At Great Cornard there is a parliamentary enclosure creating an area of a more regimented and systematic field pattern;
- A few areas are formed into Parkland; Tendring Hall Park at Stoke by Nayland, moderate sized parks at Polstead and Chelsworth in the Brett Valley and a small village green at Long Melford; and
- From elevated locations within this landscape character substantial views are obtained. This area is considered to have a wide zone visual impact.

4.3.37 The stated aim for the LCA is:

- To retain, enhance and restore the distinctive landscape and settlement character. In particular strengthening the rolling valley landscape with appropriate planting and safeguarding the dispersed settlement pattern.

4.3.38 The stated objectives are:

- To maintain and enhance the distinctive landscape and settlement pattern;
- To safeguard the parkland areas, Village Greens and Tyes; and
- To safeguard and appropriately increase the woodland cover.

Bramley Landscape Appraisal

4.3.39 The Bentley Landscape Appraisal was prepared in 2019 as part of the evidence base for the Neighbourhood Plan. The purpose of the study was to provide an understanding of the character and qualities of the Neighbourhood Plan Area (which relates to the parish boundary) in order to make judgements on the capacity of the area to accommodate housing/employment development, and present guidance on opportunities for landscape enhancement and green infrastructure.

4.3.40 The Bramley Landscape Appraisal provides a description of the County and District LCAs (Figure 7) within Bramley Parish as follows:

4.3.41 Ancient Estate Claylands – '*Within Bentley Parish this landscape type occurs along its western half, typically above 40m AOD forming the upper plateau. The topography undulates gently and contains a mix of woodland and large arable fields. The majority of the village of Bentley is located within this character type. The A12 forms the north western boundary to the Parish.*'

4.3.42 Ancient Estate Farmlands – '*Within Bentley Parish this landscape type occurs adjacent to the Rolling Valley Farmlands Type forming a transitional landscape between plateau and valley. It is a gently sloping and undulating in places generally ranging between 25-40m AOD. The upper slopes above the valleys can be steep in places with wider elevated views. This landscape supports a high concentration of woodland and a variety of field sizes – mainly medium scale arable fields but some smaller scale pasture enclosures closer to the settlement edge. This is a settled landscape comprising a dispersed pattern of individual farmsteads and cottages. Bentley occurs set back from the valley fringes at the junction between this type and the Ancient Estate Claylands. With larger areas of settlement on the upper slopes forming the plateau fringe. Towards the south of the Parish there is a predominance of orchards, fruit farms and garden centres.*'

4.3.43 Rolling Valley Farmlands – '*This landscape type occurs along the main Samford Valley and its northern tributary. The outer edge of this type is generally marked by the break in slope (c. 35m contour). Valley slopes are steep in places with woodland along the outer edge and often defining the rim of the valleys. Where the upper slopes are open there are longer distance views across and down the valley landscape. The valleys have a wooded, pastoral and small-scale character. The tributary valley includes the Great Eastern Railway (Ipswich to Manningtree trainline),*

a line of pylons and in places the valley slopes have been quarried for sand and gravel deposits.'

4.3.44 The Bentley Landscape Appraisal identifies important views within the Parish that reflect the special qualities of the area and which are highly valued by local residents. The Site is not visible within any of the important views identified.

4.3.45 The Appraisal also identifies Local Green Spaces which are areas of land that are locally special and offer unique benefits to the local community. The Site is not within or adjacent to any Local Green Space designation.

4.3.46 Finally, the Appraisal identifies the characteristics of the Parish that are of value, with reference to Box 5.1 of the GLVIA. The criteria of Box 5.1 are used to identify valued landscapes outside of formal designations. The valued landscape appraisal was undertaken for the northern part of the Parish covering the landscape outside of the Suffolk Coast and Heaths AONB, the boundary of which lies south of the village of Bentley. The valued landscape appraisal is summarised in the document as follows:

'the northern part of the Parish has a weight of evidence to support its recognition as a valued landscape due to its intact historic patterns of settlement, ancient woodland, remnant parkland and rural lanes. Although the topography over much of this landscape is relatively flat, scenic quality is derived from the balanced and cohesive composition of mature trees, wooded skylines, arable fields, historic vernacular buildings and lack of modern development. The footpath network and winding rural lanes, coupled with gentle folds in landform, afford a range of sequential views across a rural backwater which impart strong perceptions of time depth. The ancient woodlands and hedgerows are valued habitats for significant populations of endangered Stag beetle and Dormouse. Many of the buildings are listed and form important groups. These qualities elevate the area above normal countryside.'

4.3.47 The Bentley Landscape Appraisal identifies two local landscape areas within the Parish however these are focused around the village of Bentley, and for the purpose of considering the sensitivity and capacity of the settlement to accommodate development. The Site is not located in either of these local landscape areas and therefore they are not considered further.

4.3.48 The Appraisal summarises the 'Special Qualities to Conserve and Enhance' as follows:

- '*Historic network of narrow, winding, rural and sunken lanes;*
- *Areas of ancient woodland creating wooded horizons and backdrops;*
- *Deeply rural, high quality countryside especially across the north of the Parish and Samford Valley to the south;*
- *Eclectic mix of built housing styles along back lanes off the main road through the settlement;*
- *Mature veteran oaks in hedgerows, along lanes and in remnant parkland;*
- *Individual rural buildings associated with groups of trees or seen with wooded backdrop;*
- *Soft vegetated edges to village; and*
- *Views across the rural landscape to individual or small groups of vernacular buildings*.'

4.3.49 Changes to avoid are identified as follows:

- '*Creation of abrupt edges to development with little vegetation along the settlement edge;*
- *Development on upper valley slopes which can be visually intrusive and where vertical elements can appear exaggerated;*
- *Housing estates with single housing types which contrast with the back lanes and eclectic mix of housing styles;*
- *Erosion of rural lane character through introduction of new development, signage, kerbs, new junctions etc.;*
- *Development which, due to its location alters the small scale and predominately linear pattern of the village on the edge of the plateau;*
- *Development which masks the subtle changes in topography at the edge of the plateau;*
- *Introduction of individual dwellings which do not reflect the scale or detailing of vernacular properties in the area;*
- *Introduction of street lighting or unnecessary signage;*
- *Fragmentation of lanes due to the introduction of new access routes which can physically interrupt hedges, grass verges and embankments; and*
- *Proliferation of individual dwellings along rural lanes within the wider Parish, particularly where this creates linear development*.'

Summary of Landscape Character

4.3.50 The landscape character of the study area has been reviewed at various scales from a national level down to a parish level.

4.3.51 From a regional down to a parish scale the landscape of the study area is classified across three landscape types and character areas; the Ancient Estate Claylands to the west, the Ancient Estate Farmlands around the fringe of the valley, and the Rolling Valley Farmlands covering the narrow valley. The boundaries of these areas are consistent from a regional to a parish level.

4.3.52 The key characteristics of these landscape character areas are broadly consistent across all levels of published assessment, but naturally are of greater local relevance and detail at the parish level compared to the regional level. For the purpose of this LVIA the same character areas have therefore been used for assessment at the level of the study area. The key characteristics, special qualities and forces for change identified at the regional, county, district and parish scales have been considered in the assessment of the areas at the scale of the study area, with a greater consideration of the special qualities identified at a parish level.

4.3.53 The landscape of the study area is characterised by its predominantly flat topography either side of a narrow valley, with arable fields interspersed with areas of woodland and mature hedgerows and hedgerow trees that create a sense of enclosure and wooded backdrop to views. Settlement is dispersed along narrow winding lanes with individual or small groups of vernacular and occasionally listed buildings. Remnant parkland in the north of the study area is associated with the grounds of Bentley Park, Bentley Hall and Bentley Manor. There has been a decline in hedgerow cover across the central part of the study area (which includes the Site) which has reduced the small-scale pasture of the historic landscape and resulted in a larger-scale open arable field pattern. The landscape is generally tranquil but with a reduction in proximity to the railway line and overhead pylons.

4.3.54 There are opportunities to provide increased hedgerow cover and restore a historic landscape pattern of small-scale enclosure and meadows, with hedgerow trees. Locally, the published assessments identify significant populations of Stag Beetles and Dormouse in woodlands and hedgerows and there are opportunities to extend meadow habitats along with hedgerow corridors to increase habitat connectivity and support a more biodiverse ecosystem.

4.3.55 Sensitivities to be considered as part of the development include the means of access with the historic rural lanes, and avoiding lighting, signage, or urbanising kerb type features along these routes. The materiality of fencelines and soft boundary treatments should also be suitable to a rural environment.

Future Landscape Change

4.3.56 In the absence of the Proposed Development, it is considered that the Site would continue in its current state, i.e. in intensive arable use.

4.4 Visual Baseline

4.4.1 To understand the visual context of the Site, desk-based study and fieldwork has been carried out across the study area in Summer 2022 and Winter 2022/23.

4.4.2 The fieldwork confirmed the ZTVs of the Proposed Development in that the Site is of very limited visibility due to the maturity of the landscape framework around the Site boundary and in the wider landscape. Views within the study area are mostly intermittent and sequential along roads and footpaths through gaps in hedgerows. There are no long-distance views across the study area, with views contained across arable fields towards wooded backdrops.

4.4.3 There are few local visual landmarks in the study area due to the extent of enclosure such that buildings such as St Mary's Church, Bentley Hall and Bentley Hall Barn are locally visible and attractive, but not landmarks. The listed buildings north of the Site do not have intervisibility with the Site from within their curtilage. There does not appear to be any designed vistas towards locally important buildings that would also include the Site. The tower of St Mary's Church is partially visible in winter above its surrounding treeline from the western end of Potash Lane but this appears to be an incidental view rather than a designed view. The Church is not visible from Church Lane when approaching from the south.

4.4.4 Local visual detractors include the high voltage pylons which are prominent in some views due to their tall vertical height. The railway line and its associated infrastructure are a detractor but only from close positions due to its lower height such that it generally has little visual bearing on the local landscape, but with greater visibility from the east of the study area.

4.4.5 The Site is not within any important views identified at a district or parish level.

4.4.6 Viewpoints have been identified to represent the range of views experienced by visual receptors from various distances and directions around the Site.

4.4.7 A total of 12 viewpoints have been identified within the study area. Viewpoints can fall into three categories, as set out in the GLVIA:

- Representative viewpoints (which represent the experience of different types of receptors in the vicinity);
- Specific viewpoints (a particular view, for example a well-known beauty spot); and
- Illustrative viewpoints (which illustrate a particular effect / issue, which may include limited / lack of visibility).

4.4.8 The locations of viewpoints are shown on Figure 8.

4.4.9 Baseline photography has been captured from each of the viewpoints and is presented on Figures 11a to 11l, which are annotated where appropriate to highlight key features.

4.4.10 It should be noted that the viewpoint itself is not the receptor; rather the receptor is the people that would be experiencing the view from the viewpoint. Receptors in the vicinity of the Site that are likely to experience views of the development include:

- Residents in nearby properties;
- Users of public rights of way and the local quiet lanes; and
- Road users.

4.4.11 The full narrative on the visual context and judgements on visual value, susceptibility and the sensitivity of visual receptors are set out in Appendix 5.

4.4.12 The fieldwork and viewpoint photography undertaken demonstrates the accuracy of the ZTV presented on Figures 2 and 3, with visibility of the Site found to be highly localised to the Site boundary.

4.4.13 The viewpoints included in the LVIA are set out in Table 1.

Table 1: Viewpoint Locations

VP.	Description	Details
1	View north-west from Church Road at Potash	*Representative* of views available for users of Church Road, and residents at Potash

2	View east from Church Road	*Representative* of views available for users of Church Road
3	View south-west from Church Road	*Representative* of views available for users of Church Road
4	View north from Potash Lane	*Representative* of views available for users of Potash Lane, and residents at Potash
5	View east from bridleway at Grove Farm (FP 65)	*Representative* of views available to bridleway users
6	View east from bridleway along Pond Hall Lane (FP 65)	*Representative* of views available to bridleway users
7	View north-east from footpath along access track to Grove Farm (FP 50)	*Representative* of views available to footpath users, and residents along Station Road
8	View north from public footpath north of Bentley (FP 40)	*Representative* of views available to footpath users
9	View south from public footpath near Bentley Park (FP 2)	*Representative* of views available to footpath users
10	View north from footpath crossing of railway line, east of Falstaff Manor (FP 19)	*Representative* of views available to footpath users, and railway users
11	View north-west from public footpath west of the A137 (FP 19)	*Representative* of views available to footpath users
12	View south-west from public footpath Maltings House (FP 18)	*Representative* of views available to footpath users, and residents at Maltings House

4.4.14 Photomontages illustrating how the Proposed Development would appear are included with this assessment. Photomontages have been prepared from selected viewpoints (Viewpoints 1, 2, 3 and 4) located at the Site boundary where clearer views would be available.

5.0 POTENTIAL IMPACTS

5.1 Embedded Mitigation

5.1.1 A series of measures have been incorporated into both the design of the Proposed Development and the drawing up of the construction and operational procedures which are intended to provide embedded mitigation against potentially adverse landscape and visual effects and other environmental effects. These measures include:

- The landscape proposals shown on Figure 9 of this LVIA which are described further below;
- The siting of the proposed DNO substation at a depression in the landform and in close proximity to the point of connection and the railway line to reduce the

perception of electrical infrastructure extending across the local landscape, and to provide natural screening of the substation via the topography;

- The layout of access tracks and the routing of construction traffic to avoid bringing traffic through the village of Bentley, or along Church Lane; and
- The development of an 'on demand' external security and maintenance lighting system in accordance with best practice measures, which would minimise the generation of obtrusive light when in use.

5.1.2 The landscape and visual effects of the Proposed Development (as assessed below) therefore relate to a project that has benefited from mitigation by design.

Landscape Proposals

5.1.3 The Proposed Development has been designed to as far as practicable retain hedgerows and boundary vegetation, with predicted vegetation removal only around two of the access points, and at the point of connection. To retain vegetation a buffer of minimum 6m between field boundaries and the proposed solar farm fencelines has been used, but with the buffer area increasing in proximity to trees and boundary woodland as informed by the Arboricultural Tree Constraints Plan. This includes a buffer of more than 15m to the Engry Wood Ancient Woodland, and buffers to avoid root protection areas for all ancient and veteran trees in field boundaries.

5.1.4 The historic landscape fabric of the site has been somewhat eroded by the gradual removal of internal field boundaries to the fields of the Main Site, and the loss of hedgerow trees both from removal and from pests and disease. This is identified in the published landscape character assessments at all levels covering the Site, with opportunities identified to:

- generate long-term landscape enhancement through extensive hedge planting schemes, which will provide a positive landscape legacy beyond the life of the development;
- reinforce the historic pattern of field boundaries and recognising these when restoring and planting hedgerows; and
- maintain and increase the stock of hedgerow trees.

5.1.5 The layout of the Proposed Development has been guided by the Suffolk Historic Landscape Characterisation, historic maps of the Site (available to view online via the National Library of Scotland), and by the need to maximise the efficiency of the

solar development whilst considering long-term management post-decommissioning. The proposed layout of the solar arrays and hedgerows seek to respond to each of these issues to restore a smaller-scale intimate field pattern in the long-term, improve habitat connectivity, and bring a diversity of hedgerow trees. This is intended to provide a positive legacy to the Proposed Development post decommissioning, as shown on Figure 10.

5.1.6 The Proposed Development includes several smaller fields along the northern and southern boundaries of the Main Site to be maintained as wildflower meadows utilising a species-diverse mix similar to Emorsgate EM34 Mixed Diverse Meadows which contains a range of species that are associated with traditional lowland hay meadows.

5.1.7 The grassland within the fenceline of the Proposed Development is expected to be grazed by sheep, but could also be subject to annual mowing. It is expected these areas would not achieve the same levels of species diversity as the field margins and wildflower meadows outside of the solar fencelines. The species mixes here will therefore be more heavily grass focused for grazing, but would incorporate appropriate herbs and legumes for pollinator and biodiversity benefits.

5.1.8 The proposed hedgerows would utilise native species such as hawthorn, blackthorn, holly, hazel, field maple, elder, dogwood, field roses and hedgerow trees such as oak, hornbeam, elm, and small-leaved lime.

5.2 Construction Impacts

5.2.1 The construction of the Proposed Development can be managed to avoid or reduce potential impacts arising to the landscape fabric through, e.g. loss of vegetation or compaction of soils.

5.2.2 The Site and wider farm area would be managed to provide dedicated areas for materials laydown, prefabrication activities, staff car parking, operative welfare facilities and offices.

5.2.3 Temporary compound areas would be formed using heavy duty construction matting to limit the need for excavation. The precise layout of the main construction compounds / laydown area and workers' vehicle parking would be a matter for the main construction contractor, who would not be appointed until after planning permission has been secured. It should be noted that the construction compounds

would be covered by permitted development rights under Part 4 Class A: Temporary Buildings and Uses of the General Permitted Development Order (GPDO) 2015.

5.2.4 At the end of the construction period the construction compounds would be decommissioned. Stone and matting would be removed, and the areas would be restored to grassland for grazing.

5.2.5 Construction of the Proposed Development is anticipated to take approximately 32 weeks, and would follow the following outline process, which is not intended to be prescriptive but to enable the principle construction phases to be understood:

- Erection of Heras fencing around tree root protection areas;
- Establishment of Site compound(s);
- Construction of access tracks;
- Erection of deer / stock fencing and gates to Site perimeter;
- Installation of solar panels and frames;
- Installation of associated infrastructure, e.g. CCTV poles, string inverters, transformers;
- Installation of control building, switchroom building, and DNO substation building;
- Cultivation and seeding; and
- Hedgerow and woodland planting.

5.2.6 The construction of in-field solar arrays does not require any substantial changes to the existing landform as the arrays are able to follow the contours. The arrays are installed on posts which are ram-driven into the ground and therefore excavations are not required to provide concrete footings for the solar arrays. The existing soils can be largely protected as long as works are avoided following periods of inclement weather where the ground may be soft and waterlogged.

5.2.7 The construction of the DNO substation will require a limited amount of cut-and-fill in order to provide a level base for the compound area. This has been designed to provide as close as possible to a cut-and-fill balance to avoid import of materials.

5.2.8 The typical landscape and visual impacts arising from the construction period are:

- Permanent removal of short sections of hedgerow or individual trees to facilitate access and the grid connection;

- Temporary reduction in tranquillity as a result of the operation of construction plant and machinery at the Site;
- Temporary views of construction machinery including a crane, excavator, and track mounted post driving rigs; and
- Temporary reduction in tranquillity as a result of construction traffic along lanes and at the Site.

5.2.9 The timing and phasing of the different elements of construction are not known in detail. However, the assessment assumes the Proposed Development would take approximately 32 weeks to build and commission. Different activities would take place at different times during this period and, as such, construction impacts would vary over time and would not occur on a consistent basis throughout the construction stage, but rather are likely to vary in intensity with specific effects of shorter duration occurring.

5.2.10 Construction would be managed in accordance with a CEMP (to be secured by planning condition), setting out how environmental issues would be managed in compliance with any limitations imposed by the planning permission, as well as in compliance with relevant legislation, regulations and best practice guidance.

5.2.11 Items that will need to be addressed by the CEMP that pertain to landscape and visual effects are likely to include:

- A seasonally restricted programme to avoid construction activity on saturated or boggy ground, which is likely to occur over winter months;
- Measures for ensuring the successful retention of existing vegetation (for example, use of protective fencing);
- Measures taken to limit the effects of temporary construction lighting;
- Provisions for public communication to inform local people and footpath users about construction activities at the Site.
- Approximate protocols governing the establishment of the temporary contractor's compound(s), to reduce any potential adverse effects upon the amenity of the surrounding area).

Operational Impacts

5.2.12 Once operational, the landscape and visual impacts of the Proposed Development will be more static, as construction plant and machinery will have been removed off

site, and traffic numbers to and from the Site reduce to baseline levels. There would be no regular activity at the Site apart from landscape mainteance, and occasional other maintenance activity as the Proposed Development can be remotely monitored and operated.

5.2.13 The typical landscape and visual impacts arising from the operational phase of in-field solar arrays are:

- Change of land use from agricultural land, to land with a twin-function of continued agricultural use as well as renewable energy generation;
- Introduction of in-field solar arrays, associated infrastructure, and DNO substation;
- Localised reduction in tranquillity;
- Views of in-field solar arrays and associated infrastructure;
- Enhancements to biodiversity value of land; and
- Restoration and enhancement of field boundary features.

Decommissioning Impacts

5.2.14 The landscape and visual impacts of the decommissioning phase would essentially mirror the construction phase impacts. These impacts would be temporary over a relatively short period of time.

5.2.15 As shown on Figure 10, the proposed planting included in the landscape proposals on Figure 9 would be retained following the decommissioning of the solar farm.

6.0 ASSESSMENT OF EFFECTS

6.1 Approach

6.1.1 The assessment of effects has been undertaken for the construction and operational phases separately. The assessment of operational effects considers the short-term and long-term impacts of the Proposed Development, as set out in the methodology in Appendix 1.

6.2 Construction Phase

6.2.1 Temporary construction facilities and laydown areas would be required within the Site and on land in the ownership of the Applicant.

6.2.2 Construction activities would be temporary and localised. There would be a notable increase in vehicle movements along local roads to make deliveries to the Site over a short period of time. Vehicle movements would be staggered such that they would typically be intermittent, and no road widening or improvements to the local road network would be required. There would be a slight reduction in tranquillity along the local road network and within and around the Site during construction.

6.2.3 The increased presence/ movement of staff, plant and machinery would have obvious effects on views for users of the closest footpaths around the Site.

6.2.4 Night-time construction effects resulting from lighting would be limited. Lighting would generally not be present outside of normal working hours, other than low-level security lighting triggered by motion sensors. The CEMP would include measures to minimise any effects on amenity.

6.2.5 Overall, construction activities would be temporary and intermittent in nature, having only a limited influence upon the character of the wider landscape outside the Site and upon views from beyond the Site boundary.

6.2.6 As set out earlier, different activities would take place at different times during the construction period and, as such, construction impacts would vary over time and would not occur on a consistent basis throughout the construction stage, but rather are likely to vary in intensity with specific effects of shorter duration occurring. Construction effects would therefore result in significant landscape and visual effects at a localised level, but likely only for short periods of time.

6.3 Operational Phase: Landscape

Landscape Fabric (Main Site)

6.3.1 The fabric of the Main Site comprises medium- to large-scale arable fields separated by Church Lane. The landform is broadly flat with a gentle fall to the east. The overall landscape pattern is quite simple and therefore less susceptible to adverse impacts from a solar farm development.

6.3.2 The farmland is easy to recreate and as such its susceptibility to change from solar development is low. Farmland is also not rare and therefore judged to be of low value and overall low sensitivity.

6.3.3 The hedgerows are reasonably easy to re-establish if necessary, (although removal should always be avoided if possible) and as such their susceptibility to change is medium. The hedgerows are generally in a good condition although with some gaps and fragmentation, and as such their value is judged to be medium resulting in an overall medium sensitivity.

6.3.4 The hedgerow trees take longer to establish to reach their existing value, and in particular many of the hedgerow trees around the site have been assessed as either Category A or Veteran trees in the arboricultural assessment. As a result their susceptibility to change is assessed as high, and their value as high, resulting in a high sensitivity to change.

6.3.5 The landform is broadly flat and this simplicity makes it less susceptible to change that could not be easily reversed, and as such susceptibility to change is low. The value of the landform here as a landscape element is judged to be low to medium. The overall sensitivity is therefore low to medium.

6.3.6 Considering the inter-relationship of the different components of landscape fabric at the Main Site it is clear there is notable variation between the simple arable farmland, hedgerows, and landform which are of a lower sensitivity, and the hedgerow trees which are generally of a high sensitivity. The overall sensitivity is therefore medium-high.

6.3.7 The Proposed Development would introduce solar panels, associated infrastructure and landscaping which would remove the Site from arable agricultural use. Existing trees and hedgerows would predominantly be protected however the access from Potash Lane in the south-west of the Main Site would require the removal of approximately 6m of hedgerow, and the access on the west side of Church Road would require the removal of approximately 5m of hedgerow. No hedgerow trees would require removal such that there would be no adverse change to these elements.

6.3.8 The proposed landscaping includes the planting of new hedgerows to restore historic landscape patterns, reduce hedgerow fragmentation, and recreate an intimate scale of field pattern in line with published landscape character assessment guidance. In total approximately 2,543m of native species hedgerow is proposed, resulting in a net increase in hedgerow of approximately 2,532m. Overall the loss of hedgerow would result in a negligible to minor adverse effect on the underlying landscape fabric

in the short-term but this would transition to a beneficial effect on the hedgerow network in the medium- to long-term.

6.3.9 In addition to the proposed hedgerows there is approximately 10.7 ha of species diverse meadows and field margins proposed outside of the solar fenceline for carbon sequestration, soil improvement and pollinators that should produce beneficial change. There are also 139 native species hedgerow trees proposed within new sections of hedgerow, and 2,600m^2 of native woodland planting proposed in blocks around the Site boundary to screen specific views or enhance the landscape framework.

6.3.10 There will be no substantial changes to landform as the solar arrays will be post-mounted such that they follow the existing contours and do not require excavations for concrete footings. There would also be no change to the hedgerow trees.

6.3.11 A minor adverse effect on the farmland within the Site would occur, associated with the change from arable use to pasture or mowing activities with solar arrays, access tracks and associated infrastructure. This change would be reversible following decommissioning, and the land could be returned to arable use. As such, the effects on the underlying landscape fabric would not be significant.

6.3.12 The introduction of new hedgerows and hedgerow trees and the changes to the management of existing hedgerows would have a beneficial effect in respect of the long-term landscape fabric of the area and would be retained following decommissioning. The new species-diverse grassland seeding would also have a beneficial effect during the operational life of the solar farm.

6.3.13 The soft landscape proposals would accord with the stated landscape objectives for the landscape types and landscape character areas identified in published landscape character assessments, and would support the strategy to retain, enhance, and restore distinctive landscape features.

Landscape Fabric (Substation Site)

6.3.14 The fabric of the Substation Site comprises the western edge of an arable field, a public footpath, and a mosaic of woodland edge that includes several individual trees around a high voltage pylon. The landform is flat to the north but with the location of the proposed DNO substation at the southern end sitting within a depression on the eastern side of a narrow valley, with more steeply sloping landform. The combination

of landform and woodland habitats around the point of connection create a more complex valley side landform that has a degree of susceptibility to a substation development.

6.3.15 The farmland is easy to recreate and as such its susceptibility to change from a substation development is low. Farmland is also not rare and therefore judged to be of low value and overall low sensitivity.

6.3.16 The woodland edge mosaic habitat at the point of connection does not include priority habitats or species, but the arboricultural assessment does identify several Category A oak trees which clearly have an inherent landscape value. The susceptibility to change from the grid connection is high as these trees could not be easily replaced. The value is also high. The overall sensitivity is high.

6.3.17 The landform is reasonably steeply sloping and sits on a valley side such that it is susceptible to change, and its value is increased as a result of its position on a valley side. The value of the landform here as a landscape element is judged to be medium to high. The overall sensitivity is therefore medium to high.

6.3.18 The grid connection between the Site and the land east of the point of connection would be undertaken by horizontal directional drilling, which would be at a depth sufficient to get beneath the railway and intervening vegetation without any above ground impacts. There would therefore be no direct impacts on above ground features for the part of the Substation site between the Main Site and the DNO substation.

6.3.19 The access track from the road to the north would require negligible cut and fill and would not result in any vegetation removal, and as such would have a negligible effect on landscape fabric.

6.3.20 The DNO substation would require a small amount of cut and fill to create a level base for the compound, with a total area of approximately 0.11 ha. The cut and fill engineering would make a notable alteration to the existing landform that would not be in keeping with the existing contours. The railway adjacent to the proposed location of the DNO substation is also on approximately 3.5m embankment such that there has already been manmade intervention to the landform in this particular area. Given the relatively small footprint of the substation compound the overall impact on

the landform would be medium to small, resulting in a moderate to minor adverse effect.

6.3.21 The connection between the DNO substation and the high voltage pylon would require the removal of a Category A and Category B tree, as well as temporary disturbance to ground level habitats during construction. The impact would be medium to high, resulting in a moderate to major adverse effect.

6.3.22 The landscape proposals include replacement planting for the removal of trees, and the establishment of a woodland buffer to the substation compound totalling approximately 0.12 ha.

6.4 Landscape Character

6.4.1 A detailed assessment of effects upon landscape character is set out in Appendix 4. The assessment of these LCAs within the study area is judged to provide an appropriate and proportionate assessment of the effects of the Proposed Development. The similarity between the spatial definitions and descriptions of the County and District landscape character areas is such that the assessment of the District LCAs avoids repetition and allows the effects of the Proposed Development to be understood.

Main Site

6.4.2 The introduction of the Proposed Development would result in direct impact to the LCAs in which the Main Site is located (LCA 1 & 2) through the change in land use across part of the Site from arable field to solar electricity generation, and the introduction of solar panels, associated infrastructure, perimeter fencing and new boundary planting. Solar developments are perceived as being of a utilitarian appearance and therefore the increase in the perception of built development would have a degrading influence on landscape character at a localised level.

6.4.3 The Proposed Development would result in a change to the existing landscape pattern through the introduction of the proposed hedgerows, hedgerow trees and woodland belts within the Site. The alignment of these new landscape elements generally follows historic boundaries that have been removed. The large-scale of the existing field would therefore be compartmentalised into smaller field units that are more in keeping with the historic landscape pattern. This would accord with the

landscape guidelines identified at a county and district scale for the area and result in a positive change in the long-term.

6.4.4 The creation of the proposed access points to Potash Lane and Church Lane would be small in footprint and would be in keeping with the scale and appearance of existing access points along the local lanes. The small loss of hedgerow to facilitate these access points, and the access points in appearance, would have a negligible change in respect of landscape character.

6.4.5 The Proposed Development would overall have a minimal impact on the stated aim for the LCAs to retain, enhance and restore the distinctive landscape and settlement character.

6.4.6 The magnitude of change is judged to be medium in the short-term, being that there would be a moderate change in landscape characteristics over a fairly small area, and that the change would not be reversible for a long period of time. The short-term landscape effects would therefore be moderate adverse on LCA 1 Ancient Estate Claylands, and major to moderate adverse on LCA 2 Ancient Estate Farmlands.

6.4.7 In the medium- and long-term the proposed mitigation planting would provide a greater level of landscape integration and visual screening such that the Proposed Development would sit within an established landscape framework and would be of very limited visibility. The magnitude of change would reduce to small due to the highly localised area from which the change would be perceived. The medium- and long-term landscape effects would be minor adverse on the Ancient Estate Claylands LCA, and moderate to minor adverse on the Ancient Estate Farmlands LCA.

6.4.8 The landscape effects resultant from the solar development are temporary, but over a long period of time. At the point of decommissioning the Proposed Development can be removed and the landscape restored, albeit with the permanent beneficial change resulting from the proposed landscaping.

Substation Site

6.4.9 The extent of change within the LCA where the Substation Site is located (LCA 18) would be limited to the DNO Substation compound and associated access track from the road to the north. There would be limited intervisibility between the LCA and the Main Site due to the extent of vegetation between the areas.

6.4.10 As previously noted there would be a notable change in the landscape fabric albeit over a highly localised part of the LCA. These changes to landscape fabric would result in a barely perceptible change to the local landscape character.

6.4.11 The introduction of the DNO Substation compound would bring a small industrial element to the LCA. The siting of this compound adjacent to the railway line and a high voltage pylon is such that it would not be introduced into part of the landscape where similar looking infrastructure is not already present and visible. Its impact on the scenic and perceptual qualities of the LCA is therefore in the context of this infrastructure which would temper the magnitude of change. The DNO substation's position in a depression in the landform reduces its visibility from public locations, and therefore where visible only the upper parts of the gantries would be seen. Consequently, its limited visibility would further temper the landscape change. Overall, the perception of infrastructure in this part of the landscape would increase, but this is judged to be a small change.

6.4.12 The access track follows the field edge running approximately parallel to the railway line. It would be notable in the short-term as a new landscape element, but in the medium- to long-term would naturally green over similar to other farm tracks within the local landscape.

6.4.13 Overall, in the short-term the Proposed Development would have a highly localised slightly degrading influence due to its industrial appearance over a small area, and the localised changes in landscape fabric. The magnitude of change is judged to be small. The short-term landscape effect would be moderate adverse on the Rolling Valley Farmlands LCA.

6.4.14 In the medium- to long-term the proposed planting around the substation would have established and would screen it from the surrounding landscape. This planting would be perceived as a natural extension to the wooded areas to its south and tie-in with the appearance of woodland in the local landscape. The magnitude of change would reduce to small to negligible. The medium- and long term landscape effect would be minor to negligible adverse on the Rolling Valley Farmlands LCA.

6.4.15 The landscape effects resultant from the DNO Substation compound and access track are temporary, but over a long period of time. At the point of decommissioning the Proposed Development can be removed and the landscape restored, albeit with the permanent beneficial change resulting from the proposed landscaping.

6.5 Operational Phase: Visual

Impacts at Viewpoints

6.5.1 A detailed assessment of visual effects from each Viewpoint is set out in Appendix 5. The results of the visual assessment are summarised below.

6.5.2 In the short-term there would be major to moderate adverse effects from Viewpoint 2 along Church Lane at the entrance to the east and west fields of the Main Site, where there would be close views of the solar arrays through the gap in the vegetation, and which would consequently interrupt views across the adjacent fields and increase the visual sense of enclosure along the road. The effect on this view would only be experienced very briefly for people walking along the road, and would be at an oblique angle and not a natural stopping point.

6.5.3 In the medium- and long-term the visual effect at Viewpoint 2 would reduce to minor adverse as the proposed planting establishes and screens the solar arrays. The proposed planting would be sympathetic with the character of views along the road.

6.5.4 There would be moderate adverse effects from intermittent and specific locations along Church Lane, Potash Lane and the bridleway to the west of the Main Site (VP 1, 3, and 5) where there are currently gaps in field boundary vegetation that allow views across the field. From these locations the solar arrays would generally be across the middle ground of views as a result of the offsets designed into the Proposed Development to create substantial buffers and meadows around the field edges. The view of the Proposed Development from each of these viewpoints would only be experienced briefly for the receptor as a glimpsed view through a gap in the vegetation, and not at a natural stopping point along the route.

6.5.5 In the medium- and long term the effect on each of these views would reduce to minor adverse as the proposed planting establishes and screens the solar arrays.

6.5.6 There would also be moderate adverse effects for users of the public footpath at Viewpoint 12 where in the short-term there would be direct views of the DNO substation and access track. The solar development at the Main Site would not be visible due to the extent of intervening vegetation. The DNO substation comprises gantries and transformers of an industrial and utilitarian appearance. The ground level of the substation would be screened by the intervening landform due to its location in a depression on the edge of the valley to its west. The upper parts of the

substation infrastructure however would be visible. These would be seen in the context of the existing infrastructure along the railway line, but would be at a greater concentration in a single location such that they would be more prominent.

6.5.7 In the medium- and long-term from Viewpoint 12 the proposed planting around the perimeter of the DNO Substation would have established and would screen the infrastructure within the compound. The visual effect would reduce to minor to negligible adverse.

6.5.8 From all other viewpoints the visual effect would be below moderate adverse, reflecting the limited visibility of the Proposed Development, and the extent of existing screening in the landscape.

6.5.9 No part of the Site would be visible from Viewpoints 9 or 11.

Pattern of Visual Effects

6.5.10 The visual effects resulting from the Proposed Development would be experienced over a highly localised area in very close proximity to the Proposed Development. This is as a result of the pattern of landform and mature vegetation in the landscape, such that clear visibility of the solar arrays and associated infrastructure would be relatively restricted due to their low height.

6.5.11 The greatest level of effects will be experienced from intermittent locations in close proximity to the Site boundary. For the Main Site this includes gaps in hedgerow vegetation along parts of Church Lane, Potash Lane, and the bridleway (FP 65) to the west. For the Substation Site this includes the public footpath north of the location of the proposed DNO substation (FP 18).

6.5.12 Away from the Site boundary the extent of mature vegetation and the underlying landform provide effective screening of the Site, as demonstrated by the number of viewpoints within the study area where there is no or very limited visibility of the Proposed Development.

6.5.13 In addition to the assessment made from publicly available locations with reference to the viewpoints, there would also be views of the Proposed Development from several private residences along the Site boundary. These include:

- Residents on the north side of Potash Lane (Receptor 1a);

- Residents at Church Farm at the north-west corner of the Main Site (Receptor 9a); and
- Residents at Maltings House (Receptor 12a).

6.5.14 For residents on the north side of Potash Lane (Receptor 1a) the viewpoint presented at VP1 is considered a good representation of the likely level of impact and effect; the offset between the boundary to the solar development and the property is approximately the same, and therefore the scale of the Proposed Development in views would be similar to Figures 11a(ii) and 11a(iii).

6.5.15 The sensitivity of Receptor 1a would be greater the sensitivity of road users, and as a fixed receptor the view from the property would not be fleeting or glimpsed in the same way as would be experienced from a gap in the hedgerow for a receptor moving through the landscape. The magnitude of impact would therefore also increase slightly. The predicted level of effect is therefore major to moderate adverse in the short-term, which is greater than the effect predicted for users of Church Lane at VP1. In the long-term once the proposed planting is established the screening would be effective similar to Figure 11a(iii), and the level of effect would reduce to minor adverse.

6.5.16 For residents at Church Farm (Receptor 9a) the viewpoint presented at VP9 is not a good representation of the likely level of impact and effect. Church Farm is in a more elevated position than VP9 and sits adjacent to the Site boundary with direct views across the Site. The offset between Church Farm and the solar development is approximately similar to the offset between VP3 and the solar development. The scale of the Proposed Development in views from Church Farm would therefore have similarities to Figure 11c(iv) and Figure 11c(vi).

6.5.17 The sensitivity of Receptor 9a would be high. As per Receptor 1a the view from a property is fixed rather than transient for people moving through the landscape. The predicted level of effect is therefore major to moderate adverse in the short-term. In the long-term once the proposed planting is established the screening would be effective similar to Figure 11c(vi), and the level of effect would reduce to minor adverse.

6.5.18 For residents at Maltings House (Receptor 12a) the viewpoint presented at VP12 is considered a good representation of the likely level of impact and effect. The viewpoint is taken from the public footpath behind the property, albeit ground level

views from the property towards the Site are screened by garden boundary vegetation.

6.5.19 The sensitivity of Receptor 12a would be high, as per Receptors 1a and 9a. The predicted level of effect is therefore major to moderate adverse in the short-term due to the increased sensitivity of the receptor. In the long-term once the proposed planting is established the screening would be effective and the level of effect would reduce to minor adverse.

6.5.20 There would be no views of the Site from the village of Bentley to the south, or from within the area around Bentley Hall, Bentley Park and St Mary's Church to the north of the Site. Open fields in the setting of the village of Bentley (between Bentley and Potash) would remain.

6.5.21 The overall level of visual effect resulting from the Proposed Development is limited and from highly localised positions in close proximity to the Site. The layout of the Proposed Development and the proposed planting incorporated to the masterplan provides offsets to sensitive field boundaries that reduce the medium- to long-term magnitude of impact once the planting is established.

6.5.22 There would therefore be no unacceptable medium- to long-term visual effects resulting from the Proposed Development.

6.6 Operational Phase: Glint and Glare

6.6.1 A separate Glint and Glare Assessment is included with the Planning Application. This considers effects on dwellings and roads within approximately 1km to the east, south and west of the Proposed Development.

6.6.2 The glint and glare assessment reports that due to the existing screening and / or proposed screening in the landscape, there would be no significant glint and glare impacts that require mitigation or further consideration. There is therefore no additional mitigation proposed to reduce glint and glare effects over and above the embedded landscape proposals.

6.7 Operational Phase: Night-time Effects

6.7.1 The Proposed Development would not be lit (with the exception of on demand security lighting at the Transformer Stations, Control Centre and Switchroom

Building), once operational, and as such night-time landscape and visual effects would not occur.

7.0 SUMMARY, RESIDUAL EFFECTS AND CONCLUSION

7.1.1 The landscape and visual effects of the Proposed Development have been assessed in accordance with good practice guidance set out in the third edition of Guidelines for Landscape and Visual Impact Assessment. The assessment has been undertaken over a study area extending up to approximately 1km from the Site, and is supported by visualisation material, including ZTV mapping and photomontages.

7.1.2 For the purpose of the LVIA the Application Site has been referred to as the 'Main Site' when considering the land required for the proposed solar farm and access track from Station Road, and the 'Substation Site' when considering the land required for the DNO substation, grid connection and associated access track.

7.1.3 The Main Site comprises two arable fields located north of the village of Bentley, with access through Grove Farm from Station Road to the west. The fields are separated by a road (Church Road) and are part of the same farm system, managed by a single landowner. The Substation Site comprises the western edge of two arable fields to the eastern side of the Great Eastern Main Line railway. The Substation Site is connected to the Main Site by a crossing of the railway line, and is accessed via an access track to a road to the north.

7.1.4 The landscape character of the study area has been reviewed at various scales from a national level down to a parish level.

7.1.5 The landscape of the study area is characterised by its predominantly flat topography either side of a narrow valley, with arable fields interspersed with areas of woodland and mature hedgerows and hedgerow trees that create a sense of enclosure and wooded backdrop to views. Settlement is dispersed along narrow winding lanes with individual or small groups of vernacular and occasionally listed buildings. Remnant parkland in the north of the study area is associated with the grounds of Bentley Park, Bentley Hall and Bentley Manor. There has been a decline in hedgerow cover across the central part of the study area (which includes the Site) which has reduced the small-scale pasture of the historic landscape and resulted in a larger-scale open arable field pattern. The landscape is generally tranquil but with a reduction in proximity to the railway line and overhead pylons.

7.1.6 Views within the study area are mostly intermittent and sequential along roads and footpaths through gaps in hedgerows. There are no long-distance views across the study area, with views contained across arable fields towards wooded backdrops.

7.1.7 There are few local visual landmarks in the study area due to the extent of enclosure. There does not appear to be any designed vistas towards locally important buildings that would also include the Site. The Site is not within any important views identified at a district or parish level.

7.1.8 A detailed assessment of effects upon landscape character is set out in Appendix 4, and detailed assessment of effects from LVIA viewpoints in Appendix 5.

7.1.9 The LVIA has found that there would be short-term minor to negligible adverse effects on the landscape fabric of the Main Site in relation to loss of farmland and removal of short sections of hedgerow. In the long-term the effect on landscape fabric would remain minor adverse through the change in land use from farmland, but the effect on hedgerows and hedgerow trees would transition to major to moderate beneficial as the proposed planting establishes. This would accord with published landscape guidelines to restore these elements of landscape fabric.

7.1.10 At the Substation Site, there would be short-term major to moderate effects on landscape fabric due to the removal of two trees which would affect the woodland mosaic in the south of the Substation Site. There would also be moderate to minor adverse effects in relation to a change in landform at the Substation Site. In the long-term the effect would remain moderate adverse as a result of the loss of the trees during construction, but the effect would reduce from the short-term as proposed replacement planting and additional planting around the DNO substation establishes and provides a degree of enhancement to this area. The effect on landform would remain moderate to minor adverse.

7.1.11 In relation to landscape character, the Proposed Development would result in landscape effects ranging from major/moderate adverse to moderate adverse. This would be as a result of the change in land use across part of the Site from arable field to solar electricity generation, and the introduction of solar panels, associated infrastructure, perimeter fencing and new boundary planting. Solar developments are perceived as being of a utilitarian appearance and therefore the increase in the perception of utilitarian development would have a degrading influence at a localised level.

7.1.12 In the medium- and long-term the proposed planting would provide a greater level of landscape integration and visual screening such that the Proposed Development would sit within an established landscape framework and would be of very limited visibility. The landscape effects would reduce to moderate/minor adverse and minor adverse.

7.1.13 The landscape effects resultant from the solar development are temporary, but over a long period of time. At the point of decommissioning the Proposed Development can be removed and the landscape restored, albeit with the permanent beneficial change resulting from the proposed landscaping.

7.1.14 The visual effects resulting from the Proposed Development would be experienced over a highly localised area in very close proximity to the Proposed Development. This is as a result of the pattern of landform and mature vegetation in the landscape, such that clear visibility of the solar arrays and associated infrastructure would be relatively restricted due to their low height.

7.1.15 The greatest level of effects will be experienced from intermittent locations in close proximity to the Site boundary. For the Main Site this includes gaps in hedgerow vegetation along parts of Church Lane, Potash Lane, and the bridleway (FP 65) to the west. For the Substation Site this includes the public footpath north of the location of the proposed DNO substation (FP 18).

7.1.16 Away from the Site boundary the extent of mature vegetation and the underlying landform provide effective screening of the Site, as demonstrated by the number of viewpoints within the study area where there is no or very limited visibility of the Proposed Development.

7.1.17 Overall, in the medium- and long-term there would be no unacceptable adverse landscape or visual effects resulting from the Proposed Development, and it would accord with relevant Local Development Plan and Neighbourhood Plan policies.

7.1.18 A summary of the landscape and visual effects of the Proposed Development is set out in Table 2 below:

Table 2: Summary of Landscape and Visual Effects

Receptor	Sensitivity	Short-term impact	Short-term effect	Long-term impact	Long-term effect
Landscape Effects – Operational Phase					
Landscape Fabric – Main Site (farmland)	Low	Medium to High	Minor adverse	Medium to High	Minor adverse
Landscape Fabric – Main Site (hedgerows)	Medium	Small	Negligible to Minor adverse	High	**Moderate to Major beneficial**
Landscape Fabric – Main Site (hedgerow trees)	High	Neutral	No change	Medium	**Moderate to Major beneficial**
Landscape Fabric – Main Site (landform)	Low to Medium	Small to Neutral	Negligible adverse	Small to Neutral	Negligible adverse
Landscape Fabric – Substation Site (farmland)	Low	Negligible	Negligible adverse	Negligible	Negligible adverse
Landscape Fabric – Substation Site (woodland mosaic)	High	Medium to High	**Moderate to Major adverse**	Medium	**Moderate adverse**
Landscape Fabric – Substation Site (landform)	Medium to High	Medium to Small	Moderate to Minor adverse	Medium to Small	Moderate to Minor adverse
Ancient Estate Claylands LCA	Medium	Medium	**Moderate adverse**	Small	Minor adverse
Ancient Estate Farmlands LCA	Medium to High	Medium	**Major to Moderate adverse**	Small	Moderate to Minor adverse
Rolling Valley Farmlands LCA	High	Small	**Moderate adverse**	Small to Negligible	Minor to Negligible adverse
Visual Effects – Operational Phase					
VP 1 – road (quiet lane) users	Medium to High	Medium to Small	Moderate adverse	Small to Negligible	Minor to Negligible adverse
VP 1a – residents	High	Medium	**Major to Moderate adverse**	Small	Minor adverse
VP 2 – road (quiet lane) users	Medium to High	Large to Medium	**Major to Moderate adverse**	Small	Minor adverse
VP 3 – road (quiet lane) users	Medium to High	Medium	**Moderate adverse**	Small	Minor adverse
VP 4 – road (and recreational) users	Medium to High	Medium to Small	**Moderate adverse**	Negligible	Negligible
VP 5 – bridleway users	Medium to High	Medium	**Moderate adverse**	Small	Minor adverse
VP 6 – bridleway users	Medium	Medium to Small	Moderate to Minor adverse	Small	Minor to Negligible adverse

VP 7 – footpath users	Medium to High	Negligible	Negligible adverse	Negligible	Negligible adverse
VP 8 – footpath users	Medium to High	Small	Minor adverse	Negligible	Negligible adverse
VP 9 – footpath users	Medium to High	No change	Neutral	No change	Neutral
VP9a – residents at Church Farm	High	Medium	**Major to Moderate adverse**	Small	Minor adverse
VP10 – footpath and rail users	Medium to Low	Negligible	Negligible adverse	Negligible	Negligible adverse
VP 11 – footpath users	Medium to High	No change	Neutral	No change	Neutral
VP 12 – footpath users	Medium to High	Medium	**Moderate adverse**	Small	Minor to Negligible adverse
VP 12a – residents at Maltings House	High	Medium	**Major to Moderate adverse**	Small	Minor adverse

APPENDIX 1: METHODOLOGY

1.0 INTRODUCTION

1.1.1 Landscape and Visual Impact Assessment (LVIA) is a tool used to systematically identify and assess the nature and significance of the effects of a proposed development upon the landscape and upon views and visual amenity. The purpose of the LVIA is to identify the level and nature of effect arising from a proposed development and if necessary, through an iterative design process, to inform changes to the development and evolution of mitigation strategies which avoid or reduce significant adverse effects wherever possible.

1.1.2 The methodology for this LVIA is informed by guidance contained within the *Guidelines for Landscape and Visual Impact Assessment* (The Landscape Institute and Institute of Environmental Assessment, 3rd Edition, 2013), often referred to as 'the GLVIA'. The LVIA aims to establish the following:

- A clear understanding of the development site and its context, in respect of the physical and perceived landscape and of views and visual amenity;
- An understanding of the proposed development in terms of how this would relate to the existing landscape and views;
- An identification of likely significant effects of the proposed development upon the landscape and upon views, throughout the life-cycle of the development, including cumulative interactions with other developments;
- Those mitigation measures necessary to reduce or eliminate any potential adverse effect on the landscape or views arising as a result of the proposed development; and
- A conclusion as to the residual likely significant effects of the proposed development.

1.1.3 Professional judgement is a very important part of the LVIA process at every stage of the assessment. This judgement must be exercised within an assessment framework that transparently sets out the steps in the assessment process which have led to the overall conclusions. This is emphasised in Box 3.1 (page 37) of the GLVIA, which advocates a structured approach that considers the sensitivity of the

receptor and magnitude of the impact when determining if an effect is significant or not.

1.1.4 To ensure transparency in the assessment and professional judgements made, the LVIA follows a standard approach, namely:

- The establishment of the baseline conditions, against which the effects of the proposed development will be assessed;
- The determination of the nature of the receptor likely to be affected, i.e. its sensitivity;
- The prediction of the nature of the effect likely to occur, i.e. the magnitude of change; and
- An assessment of whether a likely significant effect would occur upon any receptor, by considering the predicted magnitude of change together with the sensitivity of the receptor, taking into account any proposed mitigation measures.

1.1.5 The GLVIA clarifies that the guidance concentrates on

[1.20] "*…principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive, in that it does not provide a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstance*".

1.1.6 As set out above, use of professional judgement within a structured assessment framework is a very important element of the assessment of landscape and visual effects. As discussed in the GLVIA:

[2.23] "*…Whilst there is some scope for quantitative measurement of some relatively objective matters, …much of the assessment must rely on qualitative judgement, for example about what effect the introduction of a new development or land use change may have on visual amenity, or about the significance of change in the character of the landscape and whether it is positive or negative*".

[2.24] "*…In all cases there is a need for the judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others…*"

[2.26] "*…In carrying out an LVIA the landscape professional must always take an independent stance, and fully and transparently address both the negative and positive effects of a scheme in a way that is accessible and reliable for all parties concerned*".

1.1.7 Landscape and visual matters are separate issues, and although closely related and interlinked, are dealt with as such throughout the LVIA. The methodologies for assessing both are outlined separately below.

2.0 LANDSCAPE ASSESSMENT

2.1.1 The landscape assessment considers the potential effects of the proposed development on the components of the landscape as an environmental resource. Landscape receptors which could be affected by a proposed development may include:

- Individual constituent elements and features of the landscape (sometimes referred to as landscape fabric);
- Specific aesthetic and perceptual qualities of the landscape;
- The overall character and key characteristics of the landscape as experienced in different areas (e.g. landscape character areas or types).

Sensitivity

2.1.2 The nature of a landscape receptor likely to be affected, i.e. its sensitivity is determined by considering two factors, namely:

- Susceptibility to change; and
- Value.

Susceptibility to Change

2.1.3 Susceptibility to change is defined in the GLVIA as follows:

[5.40] "*This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning polices and strategies*"

[5.41] "*The assessment may take place in situations where there are existing landscape sensitivity and capacity studies, which have become increasingly common. They may deal with the general type of development that is proposed, in which case they may provide useful preliminary background information for assessment. But they cannot provide a substitute for the individual assessment of the susceptibility of the receptors in relation to change arising from the specific development proposal*".

2.1.4 To understand susceptibility to change, the various characteristics/factors that make up a particular landscape must be identified and consideration given as to how these will be affected by the proposed development. Consideration is given to physical and perceptual factors which are considered together to derive an overall susceptibility to change. Factors influencing the susceptibility of a landscape to change resulting from a commercial-scale solar farm are set out below:

- **Scale**: A larger scale landscape (relative to the development proposed) will typically be less susceptible than a smaller scale landscape;
- **Pattern/Complexity**: The susceptibility of a receiving landscape to change will be influenced by the specific pattern of features and elements present and by the complexity of this pattern;
- **Development/Human Influence**: A landscape that includes obvious alterations to natural ground levels, contemporary development, or that is clearly functional/utilitarian in land use will typically be less susceptible than one where development is more traditional in style, or where natural influences and natural or long-established landforms are predominant;
- **Connections with adjacent areas**: A landscape which has a clear relationship with other surrounding landscapes, for example in relation to views in and out, will typically be more susceptible than one where such relationships are not present;

- **Visual Interruption**: A landscape where views are frequently interrupted by screening features, for example vegetation cover or variations in landform, will typically be less susceptible than one where there are few / no screening features.

2.1.5 A particular landscape may have different characteristics that are more or less susceptible to change. As such, the overall susceptibility to change is allocated using professional judgement based upon consideration of the various factors outlined above and the relative weight attached to these (which will vary from landscape to landscape). The assessment of susceptibility is expressed using a three point verbal scale of high, medium or low. Where appropriate, intermediate levels such as medium/high or low/medium are used to refine the assessment. The rationale in support of the assessment of susceptibility is set out for each receptor in the assessment, so that it is clear how each judgement has been made.

Value

2.1.6 The value of the landscape receptor is independent of any development proposal. The absence of a formal landscape designation does not necessarily imply that a landscape is of lower value. Value is defined in the GLVIA as:

[5.19] "*…the relative value that is attached to different landscapes by society, bearing in mind that a landscape may be valued by different stakeholders for a whole variety of reasons…Landscapes or their component parts may be valued at the community, local, national or international levels…*"

2.1.7 Factors that can help in identifying valued landscapes include:

- Presence/absence of statutory landscape designations;
- Presence/absence of local landscape designations and associated policies;
- Landscape quality/condition;
- Scenic quality;
- Rarity of particular elements/features;
- Representativeness;
- Conservation interest;
- Recreation value;
- Perceptual aspects; and

- Cultural associations.

2.1.8 The assessment of value is expressed on a similar basis to that described for susceptibility of change above. Table 1 indicates how the above factors have been used to determine landscape value.

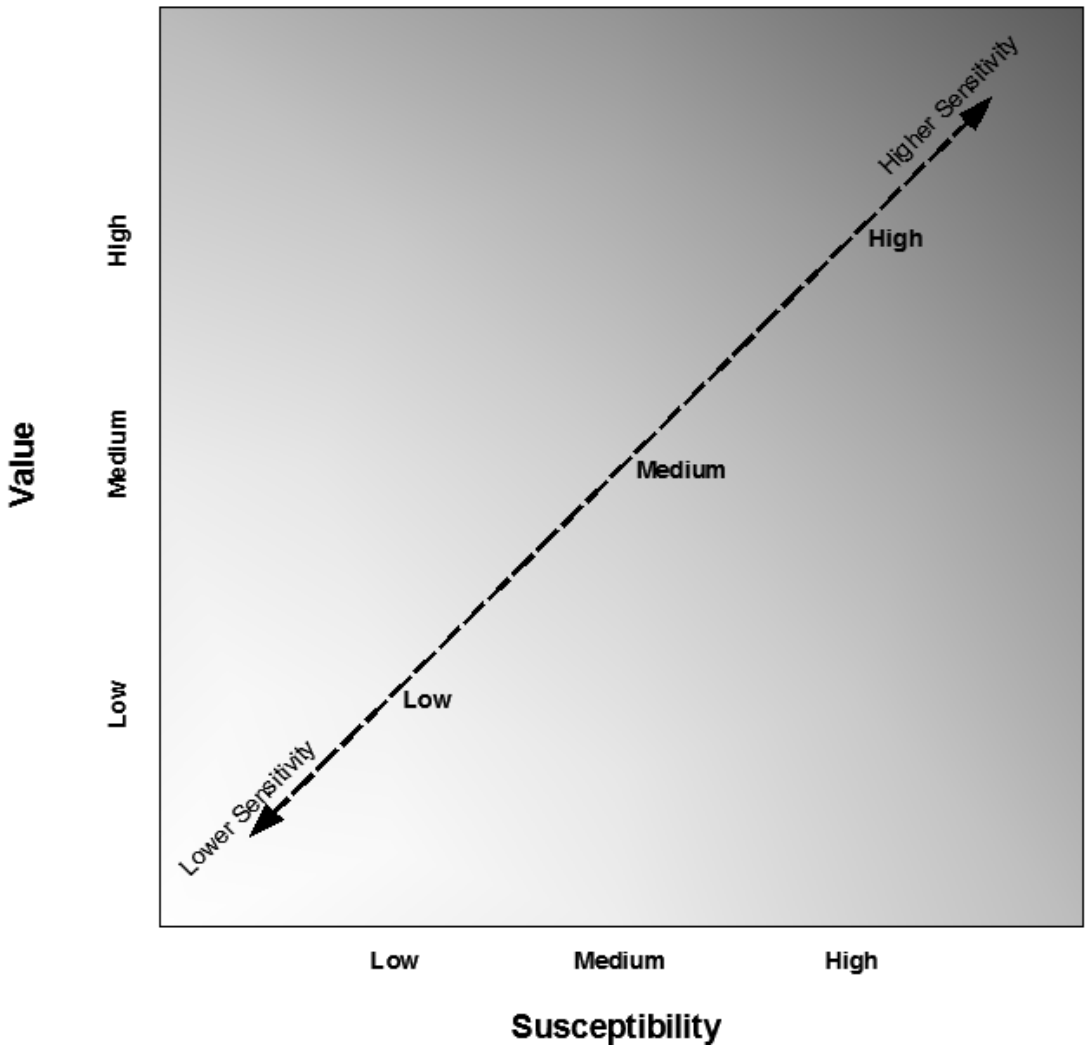
Table 1: Landscape Value Criteria

	Criteria tending towards higher or lower value	
	Higher ← →	Lower
Value	Unique, and/or strongly positive landscape character, often with strong associations or (non-landscape) environmental designations. Nationally designated landscape (protected by statute).	Widespread or common landscape character. Negative character. Lack of other environmental qualities. Landscape without formal designation and with limited positive contribution to the locality.

Sensitivity

2.1.9 Susceptibility to change and value are considered together to determine the sensitivity of the receptor. It should be noted that the relationship between susceptibility to change and value can be complex and is not linear. For example, a highly-valued landscape (such as a National Park) may have a low susceptibility to change, due both to the characteristics of the landscape and the nature of the change proposed. Figure 1 (below) provides a guide as to how susceptibility and value can be combined to assess sensitivity (with the grey shading indicative of the increasing sensitivity of receptors with increasing susceptibility and / or value). However, the final assessment of sensitivity is one of professional judgement based on consideration of the susceptibility and value assessments.

Figure 1: Indicative Sensitivity Assessment



Magnitude

2.1.10 The nature of the effect that is likely to occur, i.e. its magnitude, is determined by considering four separate factors, namely:

- Size/scale;
- Geographical extent;
- Duration;
- Reversibility.

2.1.11 The size and scale of an effect is determined by considering the amount of change experienced by a receptor, including:

- The extent of existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the wider character;
- The degree to which aesthetic or perceptual aspects of the landscapes are altered by the removal, or introduction of new landscape components; and
- Whether change affects the key characteristics of a landscape.

2.1.12 The geographical extent of an effect is the area over which effects will be experienced. It is not the same as size / scale, as a small-scale change may be experienced over a wider area, or vice-versa.

2.1.13 The duration of an effect simply relates to the length of time for which it would be experienced, as follows:

- Long-term: 10+ years: or the change could not reasonably be considered temporary in nature;
- Medium-term: 3-10 years;
- Short-term: 0-3 years.

2.1.14 The reversibility of an effect relates to the prospects and practicality of an effect being able to be wholly or partially reversed, or whether the change cannot realistically be reversed, i.e. it is permanent.

2.1.15 These four factors are then considered together to derive an overall magnitude of change for each receptor, which is determined by use of professional judgement. The assessment of the magnitude of change is expressed using a four point verbal scale of large, medium, small or negligible. Where appropriate, intermediate levels such as medium / large or small / medium are used to refine the assessment. Table 2 (below) indicates how the above factors have been used to inform magnitude of change. As the circumstances of each specific receptor will vary, a reasoned narrative is set out in the LVIA in order to justify the particular magnitude of change allocated to each receptor.

Table 2: Magnitude of Landscape Change Criteria (indicative)

Magnitude	Description
Large	A substantial change in landscape characteristics and/or over extensive geographical area and/or which may result in an irreversible landscape impact.
Medium	A moderate change in landscape characteristics and/or which may be over a large geographical area, and/or which may be reversible over a long duration of time.
Small	A small change in landscape characteristics and/or which may be over a relatively localised geographical area, and/or which may be reversible over a short duration of time.
Negligible	A barely perceptible change in landscape characteristics and/or which is focused on a small geographical area, and/or which is almost or completely reversible.

3.0 VISUAL ASSESSMENT

3.1.1 A visual assessment is concerned with the potential effects upon the population likely to be affected (i.e. the views experienced by people). As for landscape effects (Section 2.0), the sensitivity of the receptor affected is identified, as is the magnitude of the change that would occur. These are then considered together to determine the level and significance of effect.

3.1.2 A key part of the visual assessment is the assessment of effects from a number of predetermined viewpoints, which reflect views available to different groups of people. The viewpoint itself is not the receptor; rather it is the people that would be experiencing the view. These people will generally have different responses to a change in view depending upon their location, their activity and other factors, including the weather and time of day or year. Viewpoints fall into three categories (as set out in the GLVIA):

- Representative viewpoints (which represent the experience of different types of receptors in the vicinity);
- Specific viewpoints (a particular view, for example a well-known beauty spot);

- Illustrative viewpoints (which illustrate a particular effect or issue, which may include limited or lack of visibility).

3.1.3 Private viewpoints, such as from specific residential properties are not typically included in the LVIA. It is often impractical to visit all affected properties and access to private land may not be granted. Representative or specific viewpoints from nearby publicly accessible locations can often give an impression of what effects from private land would be.

Sensitivity

3.1.4 The nature of a visual receptor likely to be affected, i.e. its sensitivity is determined by considering two factors, namely:

- Susceptibility to change;
- Value.

Susceptibility to Change

3.1.5 The GLVIA identifies susceptibility to change in view/visual amenity as:

[6.32] "...*mainly a function of:*

- *The occupation or activity of people experiencing the view at particular locations; and*
- *The extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations*".

3.1.6 Susceptibility to change is, in part, classified based upon the indicative criteria, provided in the GLVIA, as set out in Table 3.

Table 3: Typical Visual Susceptibility to Change Criteria (indicative)

Criteria Level	Description
Susceptibility to Change	
High	Residents at home;

	People engaged in outdoor recreation, whose attention/interest is likely to be focused on the landscape or particular views, including from public rights of way; Visitors to heritage assets or other attractions, where views of the surroundings are an important contributor to the experience; Communities where views contribute to the landscape setting enjoyed by residents; Travellers on scenic routes.
Medium	Travellers on road, rail, or other transport routes.
Low	People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape; People at their place of work whose attention may be focused on their work / activity and not their surroundings.

3.1.7 It is important to note that the examples set out in GLVIA and Table 3 above only address the first bullet point and part of the second bullet point in paragraph 3.5 above (which are focussed on the occupation or activity of the people and the extent to which their attention is focussed on the view).

3.1.8 As such, the assessment of susceptibility in Table 3 and GLVIA (pages 113 &114) needs to be adjusted to reflect the requirements of the final part of the second bullet point, namely the visual amenity that people currently experience. GLVIA identifies clearly that the division between categories of susceptibility to change:

[6.35] "*…is not black and white and in reality there will be a gradation in susceptibility to change. Each project needs to consider the nature of the groups of people who will be affected and the extent to which their attention is likely to be focused on views and visual amenity…*"

3.1.9 For example, the presence of existing detracting features in any given view may reduce the visual amenity of those experiencing the view. This may therefore reduce their susceptibility to certain types of change and ultimately their sensitivity.

3.1.10 The assessment of susceptibility to change is made on the same basis as for landscape effects (Section 2.0 above). A three-point scale (with intermediate levels

where appropriate) is used, supported by a reasoned narrative that explains the judgement made.

Value

3.1.11 In accordance with paragraph 6.37 of the GLVIA, when considering the value of a view experienced, this should take account of:

3.1.12 Recognition of the value attached to particular views, for example in relation to heritage assets or through planning designations;

- Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature or art.
- For this reason, whilst not specifically referenced in the current edition of GLVIA, the number of people likely to be affected can influence the value assigned to a particular view.

3.1.13 The assessment of value is made on the same basis as the assessment of susceptibility to change.

Sensitivity

3.1.14 Susceptibility to change and value are considered together as discussed above for landscape sensitivity and illustrated above in Figure 1. Again, professional judgement determines the final judgement of sensitivity, due to the non-linear and complex relationship between susceptibility and value. A reasoned narrative is set out in the LVIA in order to justify the particular sensitivity assessed for each receptor, so that it is clear how each judgement has been made.

Magnitude

3.1.15 The nature of the visual effect that is likely to occur, i.e. its magnitude, is determined by considering four separate factors, namely:

- Size/scale;
- Geographical extent;
- Duration;

- Reversibility.

3.1.16 The size and scale of an effect is determined by considering the following:

3.1.17 The scale of change in view, in respect of the loss of or addition of features, and change in composition, including the proportion of the view occupied by the development;

- The degree of contrast or integration of new features or other changes;
- The nature of the view, namely the relative amount of time it would be experienced for and whether the views would be full, partial or glimpsed.

3.1.18 The geographical extent of an effect will vary from viewpoint to viewpoint and will reflect the following:

- The angle of view in relation to the main activity of the receptor;
- The distance from the proposed development;
- The extent over which a change in view would be visible.

3.1.19 The duration of an effect simply relates to the length of time for which it would be experienced, as follows:

- Long-term: 10+ years; or the change could not reasonably be considered temporary in nature;
- Medium-term: 3-10 years;
- Short-term: 0-3 years.

3.1.20 The reversibility of an effect relates to the prospects and practicality of an effect being able to be wholly or partially reversed, or whether the change cannot realistically be reversed, i.e. it is permanent.

3.1.21 These four factors are then considered together to derive an overall magnitude of change for each receptor, which is determined by use of professional judgement. The assessment of the magnitude of change is expressed using a four-point verbal scale of large, medium, small or negligible. Where appropriate, intermediate levels such as medium/large or small/medium are used to refine the assessment. Table 4 indicates how the above factors have been used to inform magnitude of change. As the circumstances of each specific receptor will vary, a reasoned narrative is set out

in the LVIA in order to justify the particular magnitude of change allocated to each receptor.

4.0 LEVEL AND SIGNIFICANCE OF EFFECT

4.1.1 The purpose of Environmental Impact Assessment (EIA) is to determine the likely significant effects of a development proposal. Not all landscape and visual effects arising as a result of a particular proposal will be significant. Furthermore, a significant effect does not necessarily mean that such an effect is unacceptable to decision-makers. This is a matter to be weighed in the planning balance alongside other factors. What is important is that the likely effects of any proposal are transparently assessed and described in order that the relevant determining authority can bring a balanced and well-informed judgement to bear as part of the decision-making process.

4.1.2 *The State of Environmental Impact Assessment Practice in the UK* (Institute for Environmental Management and Assessment 2011) identifies a range of different factors that should be considered when evaluating the significance of an effect, including:

- Knowledge and experience of significance from previous assessments;
- Details of the development proposal, such as construction and operational activities, and the nature of the effect associated with such activity;
- Details about the environmental sensitivity of the area that will be affected;
- Feedback from scoping and consultation;
- The wider legal and policy context, which offers protection to the environment and community.

4.1.3 The level of effect can only be defined in relation to each particular development and its specific location. It is for each LVIA to determine how judgements about receptor sensitivity and the magnitude of change should be combined to derive the level of effect and to clearly explain how this assessment has been made, and if the level of effect is considered significant.

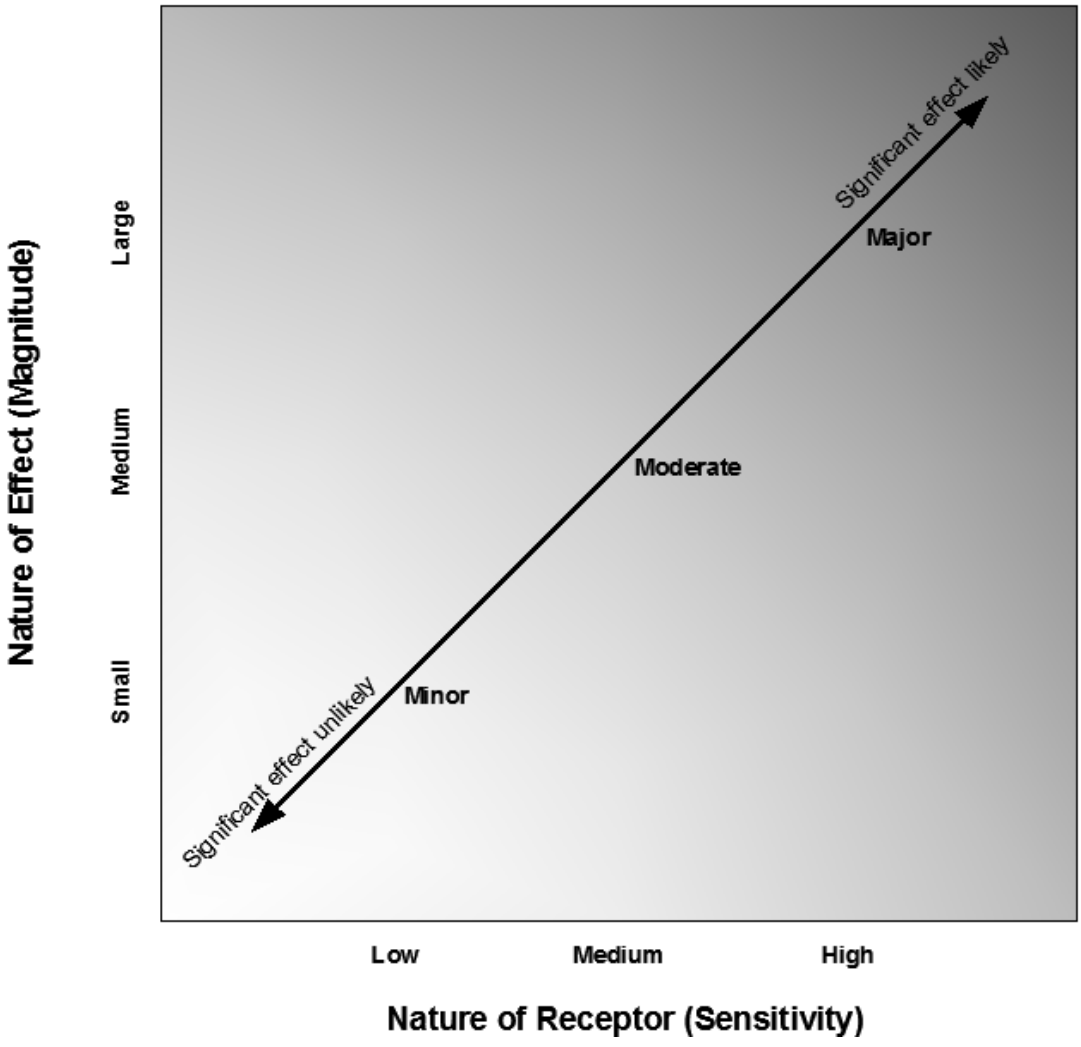
4.1.4 Figure 2 (below) provides a guide as to how sensitivity and magnitude can be combined to identify the level of effect upon a receptor (with the grey shading indicative of the increasing level of effect with increasing sensitivity and/or

magnitude). However, the final assessment of the level of effect and whether this is significant for decision makers is one of professional judgement.

4.1.5 Where magnitude of change is identified as 'negligible', then effects are automatically considered not to be significant due to the minimal level of change from baseline (which would often not be perceptible).

4.1.6 The judgement for this particular assessment is that greater than 'moderate' effects are more likely to be significant. This is because they would generally result from larger magnitudes of change on higher sensitivity receptors. This does not preclude a 'moderate' effect or lower being significant or a greater than 'moderate' effect not being significant. This judgement will depend on the specific circumstances being considered.

Figure 2: Level of Effect Matric (indicative)



4.1.7 The GLVIA identifies that:

[3.32] "*The Regulations require that a final judgement is made about whether or not each effect is likely to be significant. There are no hard and fast rules about what effects should be deemed 'significant' but LVIAs should always distinguish clearly between what are considered to be significant and non-significant effects*…

[3.33] *It is not essential to establish a series of thresholds for different levels of significance of landscape and visual effects, provided that it is made clear whether or not they are considered significant. The final overall judgement of the likely significance of the predicted landscape and visual effects is however, often summarised in a series of categories of significance reflecting combinations of sensitivity and magnitude. These tend to vary from project to project but they should be appropriate to the nature, size and location of the proposed development and should as far as possible be consistent across the different topic areas of the EIA*".

[5.56] & [6.44] "*There are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the location and [landscape] context and with the type of proposal*".

4.1.8 It should be noted that effects may be either adverse (negative) or beneficial (positive). An effect can be significant and adverse, or significant and beneficial. If change occurs, with no obvious deterioration or improvement resulting, this can be said to be neutral.

APPENDIX 2: ZTV AND VISUALISATION METHODOLOGY

1.0 INTRODUCTION

1.1.1 The purpose of this methodology is to provide an understanding of how visualisation material prepared to support the planning application for the Proposed Development has been produced. The methodology addresses the production of Zone of Theoretical Visibility (ZTV) mapping and viewpoint visualisations.

1.1.2 It should be recognised that production of visualisations is only one component of a Landscape and Visual Impact Assessment (LVIA), which will consider a range of other factors when identifying and assessing changes to the landscape and to views. The use of visualisations is a useful aid when undertaking LVIA, but the assessment process is not dependent on them. LVIA may be undertaken without use of visualisation material, although for major developments the inclusion of visualisations is accepted practice.

1.1.3 Current good practice regarding the production of visualisations is set out in:

- Landscape Institute and Institute for Environmental Management and Assessment (2013), Guidelines for Landscape and Visual Impact Assessment 3rd Edition. This document is referred to hereafter as 'the GLVIA';
- Landscape Institute (2019), Visual Representation of Development Proposals. Technical Guidance Note 06/19. This document is referred to hereafter as 'TGN 06/19'.

1.1.4 The remainder of this Methodology document is structured as follows.

1.1.5 Section 2.0 addresses the production of the ZTV mapping that informs the LVIA.

1.1.6 Section 3.0 gives details of how Viewpoints were selected for inclusion in the LVIA, and includes the details required as part of the 'Visualisation Types Methodology' that forms part of the Technical Methodology specified in Appendix 10 of TGN 06/19.

1.1.7 Section 4.0 gives details of how the viewpoint visualisation material was produced, and includes the remaining details required by the Technical Methodology specified in Appendix 10 of TGN 06/19.

2.0 ZONE OF THEORETICAL VISIBILITY

2.1.1 Zone of Theoretical Visibility (ZTV) maps have been generated in order to better understand the likely extent of the surrounding landscape across which the Proposed Development would be visible.

2.1.2 The ZTVs are presented on LVIA Figures 2 and 3.

Data Source

2.1.3 The ZTV was produced using a commercial 2m Photogrammetric Digital Surface Model (DSM) obtained from EA National Lidar Data. This takes account of screening features such as building and vegetation.

ZTV creation

2.1.4 The ZTV was calculated and created using QGIS open source software. The ZTV calculation process takes account of the curvature of the earth's surface and light refraction. The eye height of the receptor in the computer model was set at 1.7m above ground level in accordance with guidance set out in GLVIA.

2.1.5 The ZTV was generated to illustrate the theoretical visibility of the proposed solar panels (height 3m above existing ground level), using a series of marker points distributed evenly across the area where the panels would be located.

2.1.6 Colour banding is used to indicate the proportion of marker points visible.

Limitations

2.1.7 A ZTV, as use of the term theoretical implies, is not an absolute indication of the extent of visibility but rather a computer-generated aid that utilises available relative data to indicate areas of inter-visibility and screening in relation to a specific modelled object. ZTVs are tools to assist the LVIA. The technique aims to give a better understanding of the areas where visibility is likely and unlikely but imperfections in data are such that it must only be seen as an aid to understanding. This limitation needs to be recognised when interpreting the ZTVs.

2.1.8 A further caveat is that the ZTVs simply illustrate that part of a structure would be theoretically visible. As such, it makes no distinction between a clear view of all or

most of a proposed feature and a view of a very small proportion of a feature (for example one corner of a building roof, or the top of a stack). This is especially relevant in the case of the Proposed Development, where views from the surrounding area are often limited by localised changes in vegetation cover and landform.

2.1.9 The ZTV produced using the DSM does reflect the presence of screening features in the landscape. However, it should be recognised that the DSM reflects a single moment in time. In reality, the extent and / or height of vegetation cover is dynamic and changes as vegetation inevitably increases in stature over time and / or is planted, trimmed or removed. Similarly, there is potential for buildings to have been erected, demolished or modified, subsequent to the data being captured.

2.1.10 Additionally, the DSM tends to assume that vegetation captured forms a solid visual barrier, when in reality views can sometimes be available through leaves and branches, especially in winter when deciduous foliage is absent. As such, the real-world visibility of the Proposed Development may be underestimated in places.

2.1.11 The DSM does not distinguish between the ground surface and the surface of structures and vegetation. As a consequence, the ZTV output may indicate visibility from areas known to be occupied by woodland and buildings. Whilst in theory it may be possible for people to experience the views from such locations (by climbing onto roofs, or into the tops of trees), this is not representative of typical day to day visibility, and as such there is the potential to overstate the actual visibility of the Proposed Development. Ordnance Survey open mapping data (OS Zoomstack Buildings, and OS Zoomstack Woodland) have been added to the ZTV figures, to mask out mapped areas of development and tree cover.

3.0 VIEWPOINT PHOTOGRAPHY AND VISUALISATIONS

Photography

3.1.1 All photography for this assessment was taken using a Canon EOS 5D Mark II digital single lens reflex (DSLR) camera with a full-frame sensor, using a 50mm lens. The camera was mounted on a tripod to ensure a stable support and minimise camera shake. The camera was mounted on a panoramic tripod head with built-in spirit level (Nodal Ninja 3 MkII), which allows for the rotation of the camera at fixed intervals around a fixed point in vertical alignment with the camera lens, thereby eliminating

parallax error. The camera was levelled using an auto-leveller device (Nodal Ninja EZ-Leveler II). Camera height was 1.7 m above the ground.

3.1.2 Photographs were taken over a full 360 degree sweep from each viewpoint location. The precise location of each photograph was recorded using a hand-held Garmin Oregon 600 GPS device (which has an accuracy of approximately 3m). Following the Site visit, the GPS data was loaded into Google Earth, and the GPS waypoints were moved manually where necessary to reflect the tripod location. A spreadsheet was completed recording information about the viewpoint.

3.1.3 The full sweep of photos taken from each viewpoint were stitched together using the software package PTGui. The software reads the exif data attached to each individual photograph file to identify the specifications of the camera and lens, ensuring accurate production of the stitched panoramic image.

3D Model

3.1.4 A digital model of the Proposed Development was created using industry standard software (Autodesk 3DStudioMax), along with the viewpoint data recorded on site (as discussed above). This enables a series of 'camera' points to be created within the model, reflecting the view from each viewpoint towards the Proposed Development.

3.1.5 A series of markers were added to the model, representing real-world locations such as topographic features, electricity pylons, vegetation and buildings. The locations of these markers were determined via the use of aerial imagery (e.g. Google Earth) and by the Environmental Agency 1m Digital Surface Model (DSM) LIDAR data.

3.1.6 For those viewpoints where photomontages have been produced, the models were then lined up with the individual photographs that focus on the Site. The markers were used to ensure that the model lines up both horizontally and vertically as accurately as possible with the photograph (by matching the markers with the real-world equivalent), and to assist with identifying which features in the photograph would appear 'in front' of the Proposed Development, which would appear 'behind' and which, if any would be removed.

3.1.7 Once the models are lined up as accurately as possible, the Proposed Development was rendered, having regard to the particular materials and colours that are to be used, and to reflect light conditions typical of the time and date of the photography.

Photo Stitching

3.1.8 The full sweep of photos taken from each viewpoint were stitched together using the software package PTGui. The software reads the exif data attached to each individual photograph file to identify the specifications of the camera and lens, ensuring accurate production of the stitched panoramic image.

Photomontages

3.1.9 Photomontages are computer generated images, showing images of the Proposed Development superimposed upon the existing photography, with the aim of producing a visualisation that should give a realistic impression of how the Proposed Development would appear within the landscape. Photomontages have been produced from four of the LVIA viewpoints, these being locations where the Proposed Development would be visible, and where the photomontage would help the reader understand the appearance of the Proposed Development or the level of effect from different parts of the landscape.

3.1.10 The resulting stitched viewpoint image was loaded into Adobe Photoshop. Any parts of the Proposed Development that would not be visible from an individual viewpoint due to the presence of intervening features were cropped out.

Limitations

3.1.11 It should be understood that viewpoint visualisations can never provide an exact match to what is experienced in reality. Visualisations are tools in the assessment process but independent from it. They illustrate the likely change in view in the context of a specific date, time and weather conditions, that would be seen within a photograph and not as seen by the human eye. As such, visualisations need to be used in conjunction with site visits and should be considered in the context of the totality of views experienced from the viewpoint and not just focussed on the Proposed Development.

3.1.12 Photography was taken in January 2023. The photographs reflect the level of foliage present at that time of year.

3.1.13 The software (3DStudioMax) used to produce the model of the Proposed Development from each Viewpoint does not take account of the curvature of the earth's surface, and assumes a flat horizon. The effects of the earth's curvature do influence what is visible, especially in longer range views. If a flat horizon is assumed, then a feature located approximately 5km away from any viewpoint would appear approximately 1.7m higher than in reality. As such the model slightly exaggerates the height that the Proposed Development would appear in each view. As all of the viewpoints are located within 3.5km of the Proposed Development, it is considered that this is not material to the conclusions of the LVIA.

Presentation & Viewing

3.1.14 Once the final viewpoint images have been produced, they are inserted into a Figure template, which also includes information about the viewpoint, including the date and time of photography, details of the camera used, and British National Grid coordinates.

3.1.15 In relation to the viewpoint visualisations, these are displayed as follows.

3.1.16 For each Figure, the existing baseline view is displayed as the first sheet, annotated with the location of notable features including the approximate extents of the Site.

3.1.17 Where photomontages have been produced, further sheets show rendered photomontages of the Proposed Development (including with and without proposed planting).

3.1.18 The Proposed Development would occupy a wide field of view. The images presented are displayed at 100% of the original size, in a cylindrical projection. This accords with the guidance set out paragraph 4.5.22 of TGN 06/19 and in Table 5 of the same document.

3.1.19 Each sheet should be printed at the size stated on it. In some instances, this may require unconventional paper sizes (e.g. A1 width and A3 height). All printed sheets should be viewed held flat at a comfortable arm's length.

APPENDIX 3: RELEVANT EXTRACTS FROM EAST OF ENGLAND LANDSCAPE FRAMEWORK

9. Wooded Plateau Farmlands

Summary description

For the most part this is a settled, early enclosed landscape with frequent ancient woods, associated with a rolling, in places undulating glacial plateau, dissected by numerous shallow valleys.

Location

Located mainly in the Chilterns, east Hertfordshire and much of north Essex and southwest Suffolk. There is a second smaller area in east Suffolk, while a third and separate area lies to the north and west of Bedford.

Physical environment

The shape of the land

A rolling landscape on a dissected glacial plateau, in places deeply dissected, especially in the south west.

Ground type/Soils

Heavy brown soils over glacial boulder clay/till.

Natural / water features

This upland area is drained by numerous small watercourses which dissect the plateau, creating a series of shallow valleys. Field ponds are a feature in places.

Vegetation and land use

Ecological character

Frequent small to medium-sized *ancient woods*, with some notably larger woods in places, connected by a network of ancient hedgerows. A relatively high survival of primary habitats (> 7%), although relatively little is specifically protected (< 1%).

Land use

Most of the land is in arable production.

Tree cover

A wooded landscape with many ancient woods, copses and occasional smaller plantations.

Historic and built environment

Historical development

For the most part an early enclosed landscape, with late enclosures only occurring to a limited extent, in certain places. Around Bedford, however, there are extensive areas of common fields which were subject to parliamentary enclosure.

Enclosure pattern

An irregular pattern of medium to large sized fields. There has been much modification as a result of reorganisation/ boundary removal in the 20th century.

Settlement pattern

A settled character comprising a mixture of scattered farmsteads, hamlets and occasional larger villages, the latter often linear in form where they have grown along roads. Late 20th century development impinges in the southern part of the area.

Building descriptions

The core part of this landscape, between Hertfordshire and Suffolk, has a strong vernacular tradition of timber farmed buildings with tiled roofs. Some 19th/20th century brick buildings also occur in linear hamlets and around enclosed greens.

Historic features

Sinuous pattern of roads and lanes with small to medium-sized greens that are often triangular, or linear. These greens are often described as tyes in Suffolk and Essex.

Perceptual qualities

Visual experience

The network of winding, hedged lanes and paths coupled with the rolling countryside give a feeling of intimacy. In places field amalgamation has resulted in longer views over rolling, lightly wooded countryside.

Tranquillity

Despite its settled character this landscape is deeply rural and tranquil often affording a sense of remoteness and continuity. This is lost in some locations close to larger settlements and roads, or where there are pylons.

RLCT 9 Wooded Plateau Farmlands

Key priorities

The key integrated objectives are:

A. Manage, enhance and restore ancient wooded landscape, hedgerows and hedgerow trees

B. Conserve the tranquillity that exists over a wide area in the farmlands, protect views into and out of Dedham Vale AONB and resist further suburbanisation of the farmlands in Essex

C. Maintain traditional dispersed settlement patterns and seek solutions for vernacular buildings falling into disrepair

Objectives	**Integrated interests and services**
A. Manage, enhance and restore ancient wooded landscape, hedgerows and hedgerow trees 1. bring areas of ancient woodland back into active management particularly using techniques such as coppicing and ensure continued management of willow carr and free standing willows through traditional pollarding and coppice management 2. conserve and enhance ancient woods as distinct historic landscape features within their original form and boundaries 3. promote other woodland planting and where historically appropriate, link up small remnants of ancient woodland 4. restore known lost woods or portions of woods, and create and manage new small to medium-sized woods, particularly on the plateau and plateau edges 5. promote the use of wood fuel as a renewable energy as well as the carbon storage benefits of new woodland 6. maintain trees that provide features in the agricultural landscape such as hedgerow trees and pollards, small copses and ancient semi-natural woods 7. encourage appropriate tree planting using local native species to help maintain the traditional wooded appearance and character of the clay plateau 8. restore important characteristic field boundary patterns such as pre-enclosure and parish boundaries, and manage and replant hedgerows	landscape cultural heritage biodiversity sense of place tranquillity carbon storage renewable energy

9. ensure new hedgerow planting on the clay plateau does not block important amenity views or excessively enclose the landscape 10. retain characteristic surviving medieval enclosure, and sunken hollow lanes which are a landscape feature, lined with hedgerows, (although the impact of Dutch Elm disease is apparent)	
B. Conserve the tranquillity that exists over a wide area in the farmlands, protect views into and out of Dedham Vale AONB and resist further suburbanisation of the farmlands in Essex 1. retain pasture land, encourage appropriate tree planting along river courses within the valleys, and continue restoration of larger ponds to conserve the character of the farmed landscape 2. ensure modern enclosure, often for horse paddocks around settlements, does not change the character of the farmed landscape 3. plan for and manage land sold in smaller plots for non agricultural use (e.g. extended gardens, keeping caravans, keeping of horses) to ensure minimal negative effects on landscape character 4. ensure redundant agricultural buildings subject to applications for change of use (e.g. residential, office space, visitor accommodation) are monitored to ensure that conversions or change of use developments reflect the local building style, resist suburbanization and do not contribute to incremental new development in the open countryside and associated growth in demand for gardens 5. ensure applications for replacement dwellings, communication infrastructure, and utility infrastructure have minimal negative landscape and visual impacts on the character of the area 6. use the opportunity of major developments in areas of growth or in identified areas of demand or need (as identified in the Haven Gateway Green Infrastructure Strategy) to create new green infrastructure including green links that restore or enhance key views in or out of the AONB	landscape cultural heritage biodiversity sense of place tranquillity public access and enjoyment recreation

C. Maintain traditional dispersed settlement patterns and seek solutions for vernacular buildings falling into disrepair 1. maintain the dispersed settlement pattern - scattered farmsteads and small settlements around 'tyes' (commons) or strip greens and isolated hamlets with a road pattern that is winding (away from major routes), often with wide verges and strong hedgerows 2. maintain and restore the traditional buildings (and their curtlilages/setting) including timber-framed and colour-washed houses with steeply pitched roofs, (sometimes faced with Georgian red brick, pegtiles or wheat straw thatch), the impressive churches and a rich heritage of barns 3. maintain and enhance the concentration of historic moated sites, and the well preserved medieval towns and villages with elaborate timber-frame houses (e.g. Lavenham, Finchingfield, Cavendish and Thaxted)	landscape cultural heritage biodiversity sense of place tranquillity

12. Valley Settled Farmlands

Summary description

Settled, often busy landscapes which occur along the sides of the sinuous valley corridors that cut through the East Anglian clay plateau.

Location

Occurs within a broad diagonal sweep extending from Chelmsford (Essex) in the south to Fakenham (Norfolk) in the north.

Physical environment

The shape of the land

Gently sloping valleys cut through glacial till, often with deposits of sand and gravel in the valley bottoms.

Ground type/Soils

Heavy brown soils, in places slowly permeable, but better draining on more sloping land.

Natural / water features

The upper reaches of most of the river valleys draining the clay plateau occur within this landscape.

Vegetation and land use

Ecological character

Although it has a long farming history, this is a landscape with substantial and *ancient hedges* surrounding its predominantly arable fields, along with *wet meadows* in valley bottoms and patches of *ancient woodland* on upper valley slopes.

Land use

Mainly arable land, with peri-urban areas that have a more mixed landuse, including some recreational/equestrian use.

Tree cover

Hedgerow trees have a strong visual impact in this landscape, associated with the localised influence of landscaped parks (e.g. Helmingham). Woodland is mainly limited to the upper parts of the valley sides.

Historic and built environment

Historical development

Field shapes are generally organic in character, with substantial and long-established hedges. There are some patches of co-axial fields in the Waveney valley area. Narrow, riverine meadows are a feature on the upper valley floors.

Enclosure pattern

Small to medium scale landscape, sometimes with a complex enclosure pattern. Field pattern is commonly sinuous and sub-regular.

Settlement pattern

Clustered pattern of farmsteads and hamlets, with some larger market towns. Many of these settlements have experienced significant late 20th century growth. Main roads usually run along valley bottoms, while sunken lanes occur on valley sides.

Building descriptions

Vernacular houses are typically timber-framed (usually plastered and painted) and often interspersed with red-brick houses. Timber-clad and tarred barns, with tiled (plain or pan tiles), or thatched roofs are also a feature in this landscape.

Historic features

Many towns and villages with distinctive medieval cores and late medieval churches. There are also many moated farmsteads of mediaeval date within this landscape.

Perceptual qualities

Visual experience

The nature of this landscape, with its strong hedgerow networks and linear valleys, gives rise to a varied visual experience characterised by a mixture of longer distance views and more intimate, semi-enclosed scenes.

Tranquillity

Away from the busy valley settlements, this is often a tranquil and rural landscape.

RLCT 12 Valley Settled Farmland

Key Priorities

The key integrated objectives are:

- **A. Reinstate functional floodplains**
- **B. Manage and protect the agricultural landscape, soil resource and water quality while adapting to pressures from natural processes and climate change**
- **C. Protect and enhance green infrastructure and key wildlife corridors**
- **D. Protect local identity, amenity and aesthetic value from inappropriate development, horsiculture etc**

Objectives	Integrated interests and services
A. Reinstate functional floodplains 1. implement a policy of renaturalisation of watercourses by restoring minor watercourses to their natural profiles and flood regimes through de-culverting and restoration of sinuosity and the creation of new temporary wetlands. Reinstate connection between watercourse and floodplain, with consequent benefit in terms of flood storage and retention 2. identify opportunities for geodiversity, biodiversity and landscape enhancement which might result from holding water back within the valley system, (e.g. creation of temporary wetlands) to help increase storage capacity of both water and carbon, increase flood regulation and peat formation and help rapid aquifer recharge 3. plan the reconnection of upper-catchment valley pastures with the watercourse and reinstate wet grassland, fen and carr	geo-diversity biodiversity landscape cultural heritage flood alleviation sense of place carbon storage
B. Manage and protect the agricultural landscape, soil resource and water quality while adapting to pressures from natural processes and climate change 1. conserve, reinstate and manage hedgerows and hedgerow trees to strengthen the hedgerow network, the landscape pattern and increase visual diversity. Focus restoration on areas where fields have been amalgamated, hedgerow lengths/sections lost and where increased visual diversity in the landscape is desirable 2. promote farming practices that support bird populations and increase biodiversity of the area generally through the creation of field margins and over-wintering stubble combined with spring grown crops 3. maintain traditional unimproved valley meadowland where	landscape biodiversity cultural heritage sense of place carbon storage water quality geodiversity

economically feasible and through the support of agri-environment schemes 4. raise the understanding of the importance of retaining historic field patterns amongst Stewardship advisors and land managers 5. encourage the maintenance and creation of field edge / field corner habitats such as grass margins, uncropped strips, hedges and ditches, trees and ponds 6. promote and encourage the continuation of pollard management of old ash and oak trees in hedgerows to ensure their longevity 7. restore historic landscapes by replanting hedgerows on significant previously-hedged field boundaries and manage existing/restored hedgerows appropriately (e.g. by coppicing rather than laying as more in keeping with local tradition) or through more localised practices and use of species 8. discourage inappropriate practices such as using wildlife-rich meadows for horse paddocks 9. maintain and monitor water quality in streams and aquifers and use Stewardship initiatives to buffer watercourses to help reduce water quality deterioration from high nutrient levels and low flows. 10. continue to protect the headwaters of the chalk rivers from point source and diffuse pollution and protect from over-abstraction	
C. Protect and enhance green infrastructure and key wildlife corridors 1. seek to create improved pedestrian access to the countryside 2. create and enhance green infrastructure and opportunities for public access in line with county or other GI strategies by creating linkages between existing public footpaths and settlements and the trails and paths which dissect the area and identify locations for new recreational sites such as County Parks 3. manage public access so as to avoid adverse impacts upon agricultural management, landscape, habitats and wildlife 4. identify and promote new paths where a real need exists (e.g. re-connecting a village or hamlet into the rights of way network)	biodiversity landscape cultural heritage recreation access

D. Protect local identity, amenity and aesthetic value from inappropriate development, horsiculture etc 1. conserve and protect historic parklands and their houses/mansions (e.g. Thornham Magna, Helmingham and Heveningham) 2. retain and enhance historic greens and common grazing lands many of which have a valued flora (e.g. Chippenhall, Mellis and Hales). Conserve the distinctiveness of linear riverside commons on peaty soils and those on interfluvial clayland greens with settled margins. Limit the vehicular access points to such greens and conserve their distinctive settlement margins 3. encourage the retention and enhancement of moated houses (dating from the mid-12th - 16th centuries with steeply pitched pantile or pegtile roofs) and the biodiversity they support, old timber-framed barns (late medieval period - mid 19th century) and other traditional agricultural buildings (e.g. early brick barns) which have a high visual impact in the generally dispersed settlement pattern of this largely flat landscape 4. conserve and enhance historic landscape features and wildlife habitats within the planned open spaces associated with new development 5. promote local design guidance and the adoption of vernacular building materials for new development	sense of place cultural heritage landscape

16. Wooded Plateau Claylands

Summary description

An ancient wooded landscape of arable farms, associated with heavy clay soils on gently rolling plateau, which are lightly dissected by minor river valleys.

Location

Occurs in Norfolk, from Attleborough northwards to Fakenham and eastwards as far as Loddon; in Suffolk on the clay plateau edge in an arc from Stowmarket to Diss and from Lowestoft south to Hadleigh; and in two smaller areas in northeast Essex.

Physical environment

The shape of the land

A gently rolling landform associated mainly with glacial till plateau, but also occurring on London clay in Essex. This landscape is often dissected by small river valleys around the edge of the plateau, creating more complex slopes.

Ground type/Soils

Heavy clay soils derived from glacial till, or London clay.

Natural / water features

Areas of poor drainage/waterlogged soils where ponds are a common feature.

Vegetation and land use

Ecological character

A scattering of small to medium-sized *ancient woodlands*, connected by an irregular network of similarly *ancient hedgerows*. A relatively high proportion of this landscape is primary habitat (> 4%), but little is specifically protected (less than 1%).

Land use

Arable land use.

Tree cover

Relic patches of ancient semi-natural woodland and scattered hedgerow trees (oak, ash and field maple).

Historic and built environment

Historical development

This is a landscape dominated by enclosures of medieval and earlier origin, including some areas with co-axial patterns. Late enclosures are a minor element. Fieldscapes have seen significant modification in the 20th century.

Enclosure pattern

Varied field pattern including a mixture of irregular and sinuous boundaries, the latter often defined by bushy hedgerows. 20th century boundary removal and reorganisation has led to some regularisation of field shapes.

Settlement pattern

Rural settlement is fairly dense, comprising a clustered pattern of villages, hamlets and large outlying farms, connected by a network of winding, often hedged lanes and paths. Little to no 20th century development.

Building descriptions

Strong vernacular tradition of timber-framed buildings, tiled roofs and some thatch. Also some 19th and 20th century brick buildings, especially in the linear hamlets and on the enclosed greens.

Historic features

Villages often associated with medieval greens, in places called tyes. Parklands are prominent in some parts such as East Suffolk (e.g. Helmingham). There are also a large number of medieval moats throughout this landscape.

Perceptual qualities

Visual experience

Despite being a reasonably well-wooded landscape the rolling plateau landform allows frequent longer views. The comprehensive network of winding lanes and tall hedges, however, often provide a more intimate feeling.

Tranquillity

The rural nature of much of this landscape and high incidence of ancient woodland, mean that it has a high degree of tranquillity, despite a relatively dense rural settlement.

RLCT 16 Wooded Plateau Claylands

Key priorities

The key integrated objectives are:

A. Conserve, restore and enhance the characteristic ancient small woodlands and sinuous enclosure pattern

B. Plan for changes to traditional parklands through pressure from development, management and recreation

C. Conserve, restore or enhance distinctive moated buildings and churches in the landscape

D. Plan for pressure from infill development in dispersed settlement patterns through (e.g. Village Design Statements, Design Guidance etc)

Objectives	**Integrated interests and services**
A. Conserve, restore and enhance the characteristic ancient small woodlands and sinuous enclosure patterns 1. bring existing ancient and semi-ancient woodlands into management using traditional techniques such as coppicing 2. promote woodland creation by replanting known lost woods or portions of woods, the creation and management of new small and medium-sized woods particularly on the plateau/plateau edges. Also enhance ancient woods as distinct historic landscape features within their original shapes and boundaries 3. protect and manage remaining historic field and boundary patterns such as the species-rich hedgerows from pre-C18th enclosures and in-field and hedgerow trees. Restore historic landscapes by replanting hedgerows on significant previously-hedged field boundaries and managing existing/restored hedgerows appropriately (e.g. by coppicing) 4. continue pollarding of ash and oak in hedgerows and willow (in the river valleys) to ensure longevity of the trees 5. promote sustainable new uses and viable markets for private woodland to bring them back into management and enhance their environmental value (e.g. promote management for wood fuel, carbon storage benefits, informal recreation opportunities and new permissive	landscape cultural heritage biodiversity sense of place tranquillity carbon storage renewable energy

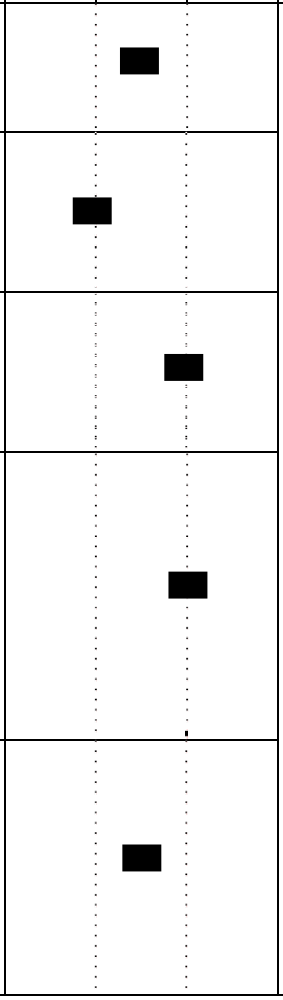
access)	

B. Plan for changes to traditional parklands through pressure from development, management and recreation 1. promote the conservation and management of historic parklands and their houses/mansions (e.g. Thornham Magna, Helmingham and Heveningham) through promoting the uptake of grants 2. seek opportunities in areas of growth to restore key historic environment characteristics and features through the planning control system 3. manage and control historic farmstead conversion to uses other than agriculture (e.g. through appropriate development and design guidance adopted as SPD) 4. promote and encourage positive management of visible and below ground archaeological and historic features that are assessed as a priority 5. celebrate and promote the rich cultural and archaeological heritage through events, activities, education and the arts 6. ensure access to the historic environment is managed as part of an integrated green infrastructure programme	landscape cultural heritage biodiversity sense of place tranquility recreation
C. Conserve, restore or enhance distinctive moated buildings or churches in the landscape 1. encourage the retention and enhancement of moated houses (dating from the mid-12th - 16th centuries with steeply pitched pantile or pegtile roofs) and the biodiversity they support, old timber-framed barns (late medieval period - mid 19th century) and other traditional agricultural buildings (e.g. early brick barns) which have a high visual impact in the generally dispersed settlement pattern of this largely flat landscape 2. conserve the distinctive Saxo-Norman, and later medieval churches, such as Wymondham, North Lopham, Framlingham, Eye and Laxfield, that form features in the landscape	cultural heritage biodiversity sense of place

D. Plan for pressure from infill development in dispersed settlement patterns through (e.g. Village Design Statements, Design Guidance etc) 1. maintain the distinctive character, settlement form and vernacular of towns and villages (generally small, dispersed, 12th or 13th century origin, within an intricate network of minor roads) and improve their setting and settlement fringes (e.g. Long Stratton) 2. retain and restore historic green lanes and former drove ways (giving priority to fragmented sections and bridleways) 3. retain and enhance historic greens and common grazing lands many of which have a valued flora (e.g. Chippenhall, Mellis and Hales). Conserve the distinctiveness of linear riverside commons on interfluvial clayland greens with settled margins. Limit the vehicular access points to such greens and conserve their distinctive settlement margins	landscape biodiversity access and recreation sense of place

APPENDIX 4: LANDSCAPE EFFECTS

Ancient Estate Claylands LCA

Susceptibility to Change: Medium		Lower ⟺ Higher	Value: Medium
Scale	Medium- to large-scale arable farmland interspersed with blocks of woodland, some of which is ancient.		• No statutory landscape designations; • Recreational access includes bridleways and public footpaths; • Limited heritage interest in the LCA; • No statutory nature conservation designations, but ancient woodland is present. • The LCA includes ancient woodland which is an irreplaceable habitat. • Sense of tranquillity apparent, apart from road noise.
Pattern/ Complexity	Simple pattern of broadly flat topography with arable farmland interspersed with woodland, hedgerows, and footpaths.		
Development/ Human Influence	The LCA retains a rural character with human influence limited to agricultural buildings, and the noise of major local roads.		
Connections with adjacent areas	The Site sits within a part of the LCA which is between the village of Bentley, and the more dispersed parts of Bentley associated with the historic Hall and parkland to the north. The LCA has a connection with the adjacent LCA 2 Ancient Estate Farmlands.		
Visual Interruption	The Site is located within a part of the LCA characterised by tall hedges and winding lines which provide a more quiet and enclosed amenity, and as such there are limited long-distance views across the landscape.		

Sensitivity: Medium

The LCA is not covered by any statutory designations. Heritage and nature conservation is of local interest. The LCA has a sense of tranquillity. Overall it is of medium to high value. The landscape pattern is relatively simple comprising broadly flat landform with arable farmland interspersed with woodland and mature hedgerows, and a rural character. The visual experience of the LCA is relatively enclosed with limited far-reaching views. The susceptibility to change is medium.

Overall the sensitivity of the LCA is judged to be medium, considering the medium to high value, and the medium susceptibility to change.

Size/ Scale of Effect:	Geographical Extent:
• Introduction of solar panels and associated infrastructure would result in a partial change in land use at a Site level;	• Localised change within the LCA that due to the low height of the Proposed Development would not be widely perceived from within the LCA.

• Increase in the perception of built development at a localised level around the Site; • Limited adverse change to existing landscape elements such as vegetation or topography.	
Duration: • Long-term	**Reversibility:** • Solar elements: Reversible (40-year lifespan) • Landscape enhancements: Permanent

Magnitude: Short-term: Medium; **Long-term:** Small

The introduction of the Proposed Development would result in a direct impact through the change in land use across part of the Site from arable field to solar electricity generation, and the introduction of solar panels, associated infrastructure, perimeter fencing and new boundary planting. Solar developments are perceived as being of a utilitarian appearance and therefore the increase in the perception of built development within the Site would have a degrading influence at a localised level.

The Proposed Development would result in a change to the existing landscape pattern through the introduction of the proposed hedgerows, hedgerow trees and woodland belts within the Site. The alignment of these new landscape elements generally follows historic boundaries that have been removed. The large-scale of the existing field would therefore be compartmentalised into smaller field units that are more in keeping with the historic landscape pattern. This would accord with the landscape guidelines identified at a county and district scale for the area and result in a positive change in the long-term.

The creation of the proposed access point to Potash Lane would be small in footprint and would be in keeping with the scale and appearance of existing access points along the local lanes, including at Grove Farm to its west to which it would be perceived as relating to due to its proximity. The small loss of hedgerow to facilitate this access point, and the access point itself would have a negligible change in respect of landscape character.

The upgrade to the existing access track between Station Road and Grove Farm follows the alignment of the existing track and would have a negligible impact on landscape character.

The Proposed Development would overall have a minimal impact on the stated aim for the LCA to retain, enhance and restore the distinctive landscape and settlement character. There would be adverse change through the introduction of the solar arrays but these would not be a permanent change, and due to offsets established in the design and the limited visibility of the development would not substantially change the character of nearby settlement. This would be balanced with the positive change from the permanent enhancements to the field and vegetation pattern that would restore the historic landscape fabric.

The magnitude of change is judged to be medium in the short-term, being that there would be a moderate change in landscape characteristics over a fairly small area, and that the change would not be reversible for a long period of time.

In the medium- and long-term the proposed mitigation planting would provide a greater level of landscape integration and visual screening such that the Proposed Development would sit within an established landscape framework and would be of very limited visibility. The magnitude of change would reduce to small due to the highly localised area from which the change would be perceived.

Effect: Short-term: Moderate**; Long-term:** Minor

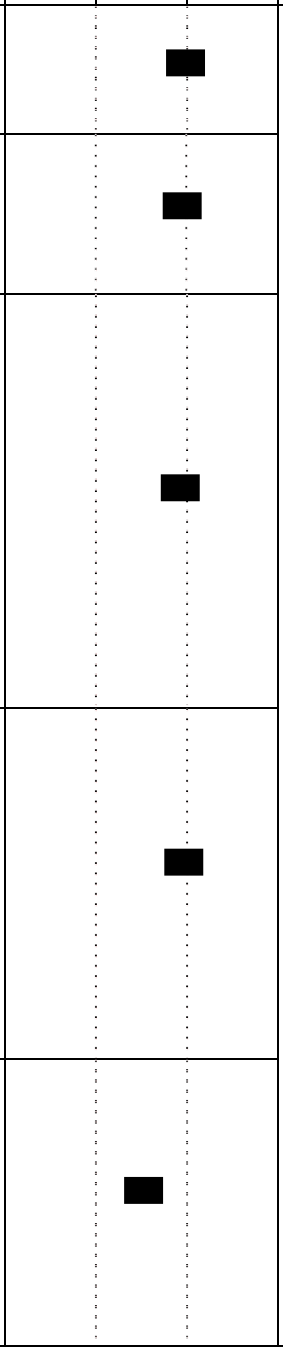
In the short-term the Proposed Development would result in a moderate level of effect to landscape character. In the longer-term this would reduce to minor.

The landscape effects resultant from the solar development are temporary, but over a long period of time. At the point of decommissioning the Proposed Development can be removed and the landscape restored, albeit with the permanent beneficial change resulting from the proposed landscaping.

Adverse/ Neutral/ Beneficial:

The introduction of the Proposed Development would be adverse.

Ancient Estate Farmlands LCA

Susceptibility to Change: Medium to High		Lower ⟺ Higher	Value: Medium to High
Scale	Medium- to small-scale with perception of enclosure from maturity of landscape framework.		• No statutory landscape designations; • Recreational access includes 'quiet lanes', bridleways and public footpaths; • Heritage interest in the area around Bentley Hall, and a time depth to the landscape; • No statutory nature conservation designations, but ancient woodland is present. • Partial sense of tranquillity slightly interrupted by railway and overhead pylon infrastructure.
Pattern/ Complexity	The LCA has a moderately complex landscape pattern of winding lanes connecting small areas of settlement.		
Development/ Human Influence	The LCA has notable human influence in its evolution and modern appearance. The historic estates create a formal landscape in places, and there is an apparent time depth with modern development at Bentley contrasting with the more historic development to the north of the study area. Features such as the redundant railway line are evident reminders of human change in the LCA.		
Connections with adjacent areas	The LCA sis either side of a narrow valley identified as LCA 18. Within the study area there is however limited connection with this valley due to its small scale and the extent of woodland around it. The LCA is not overlooked from other areas but does have a connection with the adjacent LCA 2 Ancient Estate Farmlands.		
Visual Interruption	The part of the LCA in the study area has a fairly strong sense of enclosure. Linear infrastructure includes the railway line and overhead pylons which are detractors at a localised level. There are limited long-distance views available.		

Sensitivity: Medium to High

The LCA is not covered by any statutory designations. Heritage and nature conservation includes the arrangement of buildings and designated assets around Bentley Hall and the church which are of value. The LCA has a partial sense of tranquillity. Overall it is of medium to high value. The landscape pattern has a degree of complexity due to the evident time depth. The visual experience of the LCA is relatively enclosed with limited far-reaching views. The susceptibility to change is medium to high.

Overall the sensitivity of the LCA is judged to be medium to high, considering the medium to high value, and the medium to high susceptibility to change.

Size/ Scale of Effect:	**Geographical Extent:**
• Introduction of solar panels and associated infrastructure would result in a partial change in land use at a Site level; • Increase in the perception of built development at a localised level around the Site; • Limited adverse change to existing landscape elements such as vegetation or topography.	• Localised change within the LCA that due to the low height of the Proposed Development would not be widely perceived.
Duration:	**Reversibility:**
• Long-term	• Solar elements: Reversible (40-year lifespan) • Landscape enhancements: Permanent

Magnitude: Short-term: Medium; **Long-term:** Small

The introduction of the Proposed Development would result in a direct impact through the change in land use across part of the Site from arable field to solar electricity generation, and the introduction of solar panels, associated infrastructure, perimeter fencing and new boundary planting. Solar developments are perceived as being of a utilitarian appearance and therefore the increase in the perception of built development within the Site would have a degrading influence at a localised level.

The Proposed Development would result in a change to the existing landscape pattern through the introduction of the proposed hedgerows, hedgerow trees and woodland belts within the Site. The alignment of these new landscape elements generally follows historic boundaries that have been removed. The large-scale of the existing fields would therefore be compartmentalised into smaller field units that are more in keeping with the historic landscape pattern. This would accord with the landscape guidelines identified at a county and district scale for the area and result in a positive change in the long-term. The Victorian and parkland features of the landscape would not be adversely affected in landscape terms due either to separation, or lack of intervisibility.

The incorporation '*of existing landscape features such as tree belts, woodland or hedge lines into the design and layout of development proposals such that the locally characteristic patterns can be retained within new land uses*' is considered to have been successfully accomplished in the layout of the Proposed Development. The existing landscape fabric would be retained and reinforced through the proposed planting.

The creation of the proposed access point on the west side of Church Lane would be small in footprint and would be in keeping with the scale and appearance of existing access points along the local lanes. The small loss of hedgerow to facilitate this access point, and the access point itself would have a negligible change in respect of landscape character. Similarly the upgrade to the surfacing of the existing access on the eastern side of Church Lane would have a negligible change on landscape character.

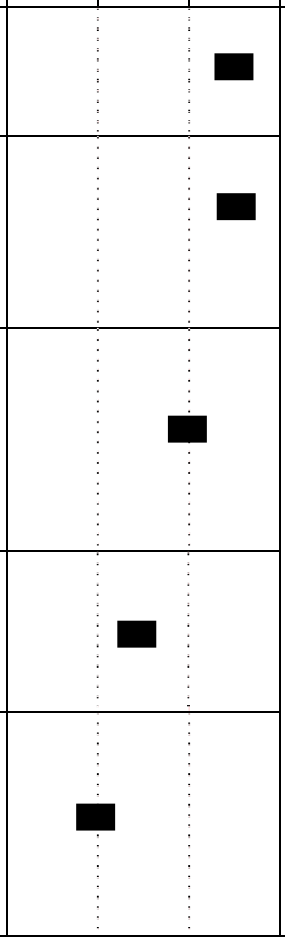
The Proposed Development would overall have a minimal impact on the stated aim for the LCA to retain, enhance and restore the distinctive landscape and settlement character. There would be adverse change through the introduction of the solar arrays but these would not be a permanent change, and due to offsets established in the design and the limited visibility of the development would not substantially change the character of nearby settlement. This would be balanced with the positive change from the permanent enhancements to the field and vegetation pattern that would restore the historic landscape fabric.

The magnitude of change is judged to be medium in the short-term, being that there would be a moderate change in landscape characteristics over a fairly small area, and that the change would not be reversible for a long period of time.

In the medium- and long-term the proposed mitigation planting would provide a greater level of landscape integration and visual screening such that the Proposed Development would sit within an established landscape framework and would be of very limited visibility. The magnitude of change would reduce to small due to the highly localised area from which the change would be perceived.

Effect: Short-term: Major to Moderate**; Long-term:** Moderate to Minor In the short-term the Proposed Development would result in a major to moderate level of effect to landscape character. In the medium- and long-term this would reduce to moderate to minor. The landscape effects resultant from the solar development are temporary, but over a long period of time. At the point of decommissioning the Proposed Development can be removed and the landscape restored, albeit with the permanent beneficial change resulting from the proposed landscaping.
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.

Rolling Valley Farmlands LCA

Susceptibility to Change: High		Lower ⟺ Higher	Value: Medium to High
Scale	Small scale narrow valley landform with limited farmland evident at the scale of the LCA.		• No statutory landscape designations; • Limited recreational access; • Limited heritage interest in the LCA; • No statutory nature conservation designations, but ancient woodland and the valley appears to be a functioning ecological corridor. • Railway line and overhead pylons reduce the sense of remoteness and tranquillity in the LCA.
Pattern/ Complexity	Complex pattern of narrow valley landform with mature or ancient woodland, dissected by the railway line which is intermittently on embankment and cutting.		
Development/ Human Influence	The LCA retains a broadly natural appearance and experience, with the exception of the railway line passing through, and overhead pylons following the alignment of the valley.		
Connections with adjacent areas	The LCA has a strong sense of enclosure due to its landform. There is limited perception of connection with adjacent areas.		
Visual Interruption	The LCA Is visually interrupted by the railway line within the valley, which is intermittently in cutting or on embankment. High voltage overhead pylons and railway gantry infrastructure are visually disruptive.		

Sensitivity: High

The LCA is not covered by any statutory designations. Designated heritage and nature conservation is limited but the valley does appear to be of ecological value. The sense of tranquillity is reduced by the discordant railway infrastructure, and by the overhead pylons. Overall it is of medium to high value. The landscape pattern is complex due to the narrow valley landform. The visual experience of the LCA is interrupted by the railway line and pylons; however, the susceptibility to change is considered to be high.

Overall the sensitivity of the LCA is judged to be high, considering the medium to high value, and the high susceptibility to change.

Size/ Scale of Effect:

- Introduction of DNO Substation Compound along with access track from the road to the north.
- Localised cut and fill to create a level base for the compound;
- Small amount of vegetation clearance at the point of connection with the pylon, resulting in the removal of two trees.

Geographical Extent:

- Localised change within the LCA that due to the low height of the Proposed Development would not be widely perceived from within the LCA.

Duration:

Reversibility:

• Long-term	• DNO Compound & access track: Reversible (40-year lifespan) • Landscape enhancements: Permanent

Magnitude: Short-term: Small; **Long-term:** Small to Negligible

The extent of change within LCA 18 would be limited to the DNO Substation compound and associated access track from the road to the north. There would be limited intervisibility between the LCA and the Main Site due to the extent of vegetation between the areas.

The DNO Substation compound would require a small amount of cut and fill to create a level base for the compound, with a total area of approximately 0.11ha. The cut and fill would therefore make a notable alteration to the existing landform over a small area. The connection works would also result in the removal of a category A and category B tree (with reference to BS 5837:2012). There would therefore be a notable change in the landscape fabric albeit over a highly localised part of the LCA. These changes to landscape fabric would result in a barely perceptible change to the local landscape character.

The introduction of the DNO Substation compound would bring an industrial element to the LCA. The siting of this compound adjacent to the railway line and a high voltage pylon is such that it would not be introduced into part of the landscape where similar looking infrastructure is not already present and visible. Its impact on the scenic and perceptual qualities of the LCA is therefore in the context of this infrastructure which would temper the magnitude of change. The DNO substation's position in a depression in the landform reduces its visibility from public locations, and therefore where visible only the upper parts of the gantries would be seen. Consequently, its limited visibility would further temper the landscape change. Overall, the perception of infrastructure in this part of the landscape would increase, but this is judged to be a small change.

The access track follows the field edge running approximately parallel to the railway line. It would be notable in the short-term as a new landscape element, but in the medium- to long-term would naturally green over similar to other farm tracks within the local landscape.

The Proposed Development would make a negligible change in respect of tranquillity as a result of its position in relation to the existing adjacent infrastructure.

Overall, in the short-term the Proposed Development would have a highly localised slightly degrading influence due to its industrial appearance over a small area, and the localised changes in landscape fabric. The magnitude of change is judged to be small.

In the medium- to long-term the proposed planting around the substation would have established and would screen it from the surrounding landscape. This planting would be perceived as a natural extension to the wooded areas to its south and tie-in with the appearance of woodland in the local landscape. The magnitude of change would reduce to small to negligible.

Effect: Short-term: Moderate**; Long-term:** Minor to Negligible

In the short-term the Proposed Development would result in a moderate level of effect to landscape character. In the longer-term this would reduce to minor.

The landscape effects resultant from the DNO Substation compound and access track are temporary, but over a long period of time. At the point of decommissioning the Proposed Development can be removed and the landscape restored, albeit with the permanent beneficial change resulting from the proposed landscaping.

Adverse/ Neutral/ Beneficial:

The introduction of the Proposed Development would be adverse.

APPENDIX 5: VISUAL EFFECTS

Viewpoint 1 (VP 1): View north-west from Church Lane at Potash

Grid Ref: 611716, 237581

The view is from Church Lane heading north from Bentley, close to the junction with Potash Lane at the south-east corner of the western field of the Main Site. The view is from a gap in the field boundary vegetation and is therefore a specific view not representative of wider views along the road. The viewpoint is also representative of views from properties with open aspect onto the Site along the north side of Potash Lane.

The photograph on Figure 11a(i) demonstrates the enclosure along much of Church Lane, but that where there are gaps in the vegetation there are views across the field in the west of the Main Site. The field is flat and open in appearance, with a wooded skyline at the far side of the Site.

Susceptibility to Change: High	**Value: Medium**

• Residents
  ▪ Have a high susceptibility to a change in view.
• Road users
  ▪ The route is a designated quiet lane and it is judged that the views available over the adjoining landscape are a part of the experience.
	• Not a recognised viewpoint or view to or from a statutory designated landscape; and
	• Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to residents north of Potash Lane, and road users of a designated quiet lane where views contribute to the experience, such that susceptibility to change is high. The view is an ordinary view across arable farmland and not of a statutory designated landscape, and is not from a recognised viewpoint, such that the value is medium. Overall the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • Partial change to the middle ground of the view with the introduction of solar panels, fencing and landscaping visible.
  • Distance to Proposed Development is such that the solar arrays only occupy a relatively short horizontal band.
• **Degree of contrast / integration:**
	• **Angle:** Oblique to road alignment
	• **Distance to Proposed Development:** 125m to fenceline
	• **Extent of area over which changes to would be visible:** glimpsed view through gap in vegetation

<table>
<tr><td>

- There would be a degree of contrast in the short-term, although the views along the road would be unchanged, and the open aspect onto the field would be unchanged.
- In the long-term the Proposed Development would be screened by the proposed hedgerow and tree planting that would integrate well with the view to retain the open field aspect adjoining the road.

- **Nature of the View:**
  - Glimpsed view.

</td><td></td></tr>
<tr><td>Duration: Long-term.</td><td>Reversibility: Reversible (40 year lifespan).</td></tr>
<tr><td colspan="2">Magnitude: Medium to Small (short-term); Small to Negligible (medium and long-term)

As shown on Figure 11a(ii), in the short-term the solar arrays would be visible across part of the middle ground of the view through a gap in the hedgerow along Church Lane. The foreground of the view into the field and the view along Church Lane would be unchanged. The solar arrays would be visible as a relatively short horizontal band within the field, beyond an area of open meadow grassland. The top edge of the arrays would sit across part of the skyline where the horizontal form would be emphasised in comparison to the softer and more varied wooded parts of the skyline. The solar arrays have a somewhat uniform and utilitarian appearance that would have a degree of contrast with the existing view. The view of the Proposed Development would only be experienced briefly for the receptor as a glimpsed view through a gap in the vegetation, and not at a natural stopping point along the route; as a result the magnitude of impact is considered to be reduced.
As shown on Figure 11a(iii), in the medium- and long-term the proposed planting would have established and would be maturing. The planting would screen views of the solar arrays and by offsetting the solar arrays from the southern edge of the field there would remain an open aspect from the road, with the hedgerow curtailing views across the development. The change would therefore reduce to small/negligible.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="2">Effect: Moderate adverse (short-term); Minor to Negligible adverse (medium and long-term)

The effect would be moderate adverse in the short term, considering the medium to high sensitivity and the medium to small level of impact. As the view is from a short section of the route the effect is judged to be moderate adverse.</td></tr>
</table>

In the long-term as planting establishes the overall change from the baseline view would be limited, as demonstrated by Figure 11a(iii). The effect would reduce to minor to negligible adverse.
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.

Viewpoint 2 (VP 2): View east from Church Lane

Grid Ref: 611841, 237754

The view is from Church Lane looking east across the eastern field of the Main Site, from the access point to the field in its south-west corner. The view is from a gap in the field boundary vegetation and is therefore a specific view not representative of wider views along the road where hedgerows provide screening of the Site.

The photograph on Figure 11b(i) demonstrates that at this gap in the vegetation there are views across the field in the foreground, with trees around the northern and eastern boundaries, and trees within the valley between the Main Site and Substation Site curtailing any long-distance views and providing enclosure. The valley landform to the east is not distinctive, with partial views through to the arable fields on its eastern side. High voltage pylons are a notable feature along the skyline.

The view is glimpsed in the context of walking along the route, and not a natural stopping point.

Susceptibility to Change: High	**Value: Medium**
• Road users ▪ The route is a designated quiet lane and it is judged that the views available over the adjoining landscape are a part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to road users of a designated quiet lane where views contribute to the experience, such that susceptibility to change is high. The view is an ordinary view across arable farmland and not of a statutory designated landscape, and is not from a recognised viewpoint, such that the value is medium. Overall the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • The new access track, solar arrays and fenceline would be visible across the foreground of the view;
  • Views across the field would be obstructed by the Proposed Development;
• **Degree of contrast / integration:**
	• **Angle:** Oblique to road alignment
	• **Distance to Proposed Development:** 10m
	• **Extent of area over which changes would be visible:** approximately 30m section of road

<table>
<tr><td>

- The Proposed Development would contrast with the view in the short-term, with close views of the solar arrays and associated fencing and access track.
- In the long-term the Proposed Development would be screened by the proposed hedgerow and tree planting that would integrate well with the view.

- **Nature of the View:**
  - Glimpsed view through gap in vegetation.

</td><td></td></tr>
<tr><td>Duration: Long-term.</td><td>Reversibility: Reversible (40 year lifespan).</td></tr>
<tr><td colspan="2">Magnitude: Large to Medium (short-term); Small (medium and long-term)

As shown on Figure 11b(ii), in the short-term there would be close, direct views of the solar arrays, fenceline and access track through the gap in the vegetation at the site entrance. The Proposed Development would interrupt views across the field and increase the perception of enclosure along Church Lane, whilst the solar panels are of a utilitarian appearance. Views beyond the solar arrays to the wooded skyline would still be partially visible. Overall the impact would be large to medium, as although the Proposed Development would notably contrast with the view, it would only be visible briefly and at an oblique angle to the road.
As shown on Figure 11b(iii), in the medium- to long-term the proposed planting would screen the solar arrays, forming an extension to the existing hedgerow and lining the access track in a manner that is characteristic of the area. The proposed planting would continue to curtail views out to the east and create a sense of enclosure to the road, but would be sympathetic with the character of views along the road. The impact would reduce to small.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="2">Effect: Major to Moderate (short-term); Minor (medium and long-term)

In the short-term the effect would be major to moderate adverse considering the high to medium sensitivity, and the large to medium magnitude of impact. The effect would only be experienced briefly and from a short section of the route at an oblique angle.
In the long-term the effect would reduce to minor adverse as the proposed mitigation planting establishes, with reference to Figure 11b(iii).</td></tr>
<tr><td colspan="2">Adverse/ Neutral/ Beneficial:</td></tr>
</table>

The introduction of the Proposed Development would be adverse.

Viewpoint 3 (VP 3): View south-west from Church Lane

Grid Ref: 611884, 238022

The view is from Church Lane looking south-west from the access point in the north-eastern corner of the western field of the Main Site. The view is from a gap in the field boundary vegetation and is therefore a specific view not representative of wider views along the road where hedgerows provide screening of the Site.

The photograph on Figure 11c(i) demonstrates that at a gap in the vegetation there are views across the flat open landform of the Site in the foreground, with the treeline along Potash Lane curtailing the view. Several properties along Potash Lane are visible amongst the trees, with the windows of one property (presumed to be 8 Falstaff Cottages) with a clear aspect across the Site.

Susceptibility to Change: High	**Value: Medium**
• Road users ▪ The route is a designated quiet lane and it is judged that the views available over the adjoining landscape are a part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to road users of a designated quiet lane where views contribute to the experience, such that susceptibility to change is high. The view is an ordinary view across arable farmland and not of a statutory designated landscape, and is not from a recognised viewpoint, such that the value is medium. Overall the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • Change to the view with the introduction of solar panels, fencing and landscaping visible.
  • Set back to Proposed Development is such that the solar arrays would not dominate views.
• **Degree of contrast / integration:**
  • There would contrast with the view in the short-term, although the views along the road would be unchanged, and the open aspect onto the field would predominantly remain.
	• **Angle:** Oblique to road alignment
	• **Distance to Proposed Development:** 75m to fenceline
	• **Extent of area over which changes to would be visible:** glimpsed view through gap in vegetation

• In the long-term the Proposed Development would be largely screened by the proposed hedgerow and tree planting that would integrate well with the view to retain the open field aspect adjoining the road. • **Nature of the View:** • Glimpsed view.	
Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).
Magnitude: Medium (short-term)**; Small** (medium and long-term) As shown on Figure 11c(iii) and Figure 11c(iv), in the short-term the site fenceline and the rear side of the solar arrays would be visible in the western field of the Main Site, with the mature hedgerow along Church Lane screening views of the eastern field. The solar arrays in the western field are set back from the opening in the hedgerow, with a meadow in the foreground. As such, the views south-west through the opening are of closer views of the solar arrays (Figure 11c(iii), but the views west are more open across the meadow with a more substantial set back to the solar arrays (Figure 11c(iv). The Proposed Development would form a low horizontal band across the view of fairly uniform but utilitarian appearance. The top edge of the arrays would sit below the skyline such that the tops of the trees along the southern and western boundaries of the field would remain visible. The view of the Proposed Development would only be experienced briefly for the receptor as a glimpsed view through a gap in the vegetation, and not at a natural stopping point along the route; as a result the magnitude of impact is considered to be reduced. The impact would be medium. As shown on Figure 11c(v) and Figure 11c(vi), in the medium- and long-term the proposed planting would have established and would provide screening of the fenceline and lower parts of the solar arrays. The top of the solar arrays would remain partially visible beyond the hedgerow and hedgerow trees. The proposed planting would enclose the meadow in the foreground, maintaining the open aspect onto a field in the view from Church Lane. The view would remain a glimpsed view from Church Lane. The magnitude of impact would reduce to small once the proposed planting is established.	
Effect: Moderate (short-term)**; Minor** (medium and long-term) In the short-term the effect would be moderate adverse considering the high to medium sensitivity, and the medium magnitude of impact. The effect would only be experienced briefly and from a short section of the route at an oblique angle, and	

as such the effect of moderate adverse in this instance is not considered to result in a significant effect. In the long-term the effect would reduce to minor adverse as the proposed mitigation planting establishes, with reference to Figure 11c(v) and Figure 11c(vi).
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.

Viewpoint 4 (VP 4): View north from Potash Lane

Grid Ref: 611330, 237650

The view is north from Potash Lane at a gap in the vegetation used as an access point to the western field of the Main Site. Potash Lane is generally lined by mature hedgerows and trees, and it is only at access points where there are open views into the Site.

The photograph on Figure 11d(i) demonstrates a similar view to Viewpoints 1 and 3 around the Site, in that the view is open across the flat landform of the Site towards the treeline along the northern boundary of the Site. The church tower of St Mary's Church is just visible along the skyline, however this appears to be incidental rather than a designed view towards the church tower. The vegetation cover along Potash Lane and trees around the church itself restrict the general visibility towards the church tower.

The view is glimpsed in the context of walking along the route, and not a natural stopping point.

Susceptibility to Change: High	**Value: Medium**
• Road users ▪ The road is popular with local walkers and it is judged that the views available over the adjoining landscape are a part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to users of the road (which includes recreational users) where views contribute to the experience, such that susceptibility to change is high. The view is an ordinary view across arable farmland and not of a statutory designated landscape, and is not from a recognised viewpoint. The church tower adds some interest but is not prominent in the view. The value is therefore judged to be medium. Overall the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • Change in view with introduction of solar arrays across background of the view, with landscaping an fencelines in the foreground.
  • Set back to the solar arrays means they would not dominate views.
	• **Angle:** Oblique to road alignment
	• **Distance to Proposed Development:** 15m to fenceline
	• **Extent of area over which changes to would be visible:** glimpsed view through gap in vegetation

• **Degree of contrast / integration:**
  • Contrast in view in the short-term, although the proposed planting would be broadly in keeping with the rural context.
  • In the long-term the proposed planting would provide screening and fill in the gap in the hedgerow in the foreground.
• **Nature of the View:**
  • Glimpsed view.	

Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).
Magnitude: Medium to Small (short-term)**; Negligible** (medium and long-term) As shown on Figure 11d(ii), in the short-term there would be filtered views through to the solar arrays, with the proposed woodland belt planting in the foreground breaking up views. The solar arrays would appear as a uniform horizontal band in the background of the view, in places breaking the skyline but with the tops of trees just visible to the north. Views of the church tower would be lost, however this view does not appear to be a designed view, and the gap in the hedgerow is not a natural stopping point from which to view the church. The view of the Proposed Development would only be experienced briefly for the receptor as a glimpsed view through a gap in the vegetation, as a result the magnitude of impact is considered to be reduced. The overall magnitude of impact would be medium to small. As shown on Figure 11d(iii), in the medium- and long-term the proposed planting in the foreground would screen views, with the proposed hedgerow filling the gap in the existing hedgerow, which would be in keeping with the existing enclosure along Potash Lane. The magnitude of change would reduce to negligible.	
Effect: Moderate (short-term)**; Negligible** (medium and long-term) The effect would be moderate adverse in the short term, considering the medium to high sensitivity and the medium to small level of impact. As the view is from a short section of the route the effect is judged to be moderate adverse, which in this instance would not be significant. In the long-term as planting establishes the view across the field would be lost from this location along Potash Lane, with the proposed hedgerow tying in to the existing hedgerow such that the change in view would be in keeping with existing	

views along the road, as demonstrated by Figure 11d(iii). The effect would reduce to negligible adverse.
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.

Viewpoint 5 (VP 5): View east from bridleway at Grove Farm (FP 65)

Grid Ref: 611055, 237691

The view is from the bridleway along the western edge of the western field of the Main Site, at an access point to the field in the south-west corner close to Grove Farm. The view is a specific view for bridleway users, with the bridleway to the north through dense hedgerow vegetation that limits views out across the Site (with reference to VP 6).

The photograph on Figure 11e demonstrates a similar view to VP 1, 3 and 4 in that it is an open view across flat, open farmland, with tree and hedgerow cover along the field boundaries curtailing any longer-distance views.

The view is glimpsed in the context of walking along the route, and not a natural stopping point.

Susceptibility to Change: High

- Footpath users
  - The bridleway is popular with local walkers and it is judged that the views available over the adjoining landscape are a part of the experience.

Value: Medium

- Not a recognised viewpoint or view to or from a statutory designated landscape; and
- Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to users of the bridleway where views contribute to the experience, such that susceptibility to change is high. The view is an ordinary view across arable farmland and not of a statutory designated landscape, and is not from a recognised viewpoint. The value is therefore judged to be medium. Overall the sensitivity to change is medium/high.

Size / Scale of Effect:

- **Scale of Change in view:**
  - Views of the solar arrays across the middle ground of the view, with an open aspect retained in the foreground of the view across arable field.
  - Distance to Proposed Development is such that the solar arrays only occupy a relatively short horizontal band.
- **Degree of contrast / integration:**

Geographical Extent:

- **Angle:** Direct
- **Distance to Proposed Development:** 150m to fenceline
- **Extent of area over which changes would be visible:** brief view from short section of bridleway

<table>
<tr><td colspan="2">

- There would be a degree of contrast in the short-term, although the views of the foreground would be unchanged, and views of the wooded skyline would remain.
- In the long-term the Proposed Development would be screened by the proposed hedgerow and tree planting that would integrate well with the view to retain the open field aspect.

- **Nature of the View:**
  - Brief, direct view.

</td></tr>
<tr><td>Duration: Long-term.</td><td>Reversibility: Reversible (40 year lifespan).</td></tr>
<tr><td colspan="2">Magnitude: Medium (short-term); Small (medium and long-term)

In the short-term there would be direct views of the solar arrays which would be seen across the field in the middle ground of the view. The open aspect onto arable field to the east would remain over this short section of footpath. The solar arrays would be seen as a thin horizontal band of uniform height and appearance, with a somewhat utilitarian appearance. The low height of the solar arrays is such that the wooded skyline beyond the panels would still be visible above the top edge of the panels for most of the site. The view of the Proposed Development would only be experienced briefly for the receptor from the bridleway before the footpath moves into a hedgerow lined corridor. It is also not at a natural stopping point along the route; as a result the magnitude of impact is considered to be reduced. The magnitude of impact would be medium.
In the long-term the proposed hedgerow and hedgerow tree planting along the western boundary of the Proposed Development would predominantly screen the solar arrays, such that the view from this section of bridleway would be similar to the baseline with a view across an arable field towards a hedge line. The magnitude of impact would be small.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="2">Effect: Moderate (short-term); Minor (medium and long-term)

The effect would be moderate adverse in the short term, considering the medium to high sensitivity and the medium level of impact. As the view is from a short section of the route the effect is judged to be moderate adverse, which in this instance would not be significant.
In the long-term as planting establishes the overall change from the baseline view would be limited. The effect would reduce to minor adverse.</td></tr>
</table>

Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.

Viewpoint 6 (VP 6): View east from bridleway along Pond Hall Lane (FP 65)

Grid Ref: 610960, 237972

The view is from the same bridleway as VP 5 from further north along the route, at an access point to the field that is in the north-western corner of the western field of the Main Site. The view is a specific view from a gap in the vegetation.

The photograph on Figure 11f demonstrates the hedgerow cover either side of the access gate, which heavily filters views towards the Site in winter, and screens views in summer. At the gap in the vegetation there is a simple view across flat open farmland towards the treeline along the north and east side of the field.

The view is glimpsed in the context of walking along the route, and not a natural stopping point.

Susceptibility to Change: High	**Value: Medium to Low**
• Footpath users ▪ The bridleway is popular with local walkers and it is judged that the views available over the adjoining landscape are a part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland that is briefly glimpsed and predominantly screened.

Sensitivity: Medium

The viewpoint is representative of views available to users of the bridleway where views contribute to the experience, such that susceptibility to change is high. The view is an ordinary view across arable farmland and not of a statutory designated landscape, and is not from a recognised viewpoint. The view is predominantly screened by vegetation alongside the footpath. The value is therefore judged to be medium to low. Overall the sensitivity to change is medium.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • Views through the gap in the vegetation towards the fenceline and solar arrays which would be seen across the middle ground of the view.
  • Distance to Proposed Development is such that the solar arrays only occupy a relatively short horizontal band.
• **Degree of contrast / integration:**
  • There would be a degree of contrast in the short-term, although
	• **Angle:** Oblique to footpath
	• **Distance to Proposed Development:** 195m to fenceline
	• **Extent of area over which changes would be visible:** brief view from gap in hedgerow

<table>
<tr><td>the views of the foreground would be unchanged, and views of the wooded skyline would remain.
• In the long-term the Proposed Development would be screened by the proposed hedgerow and tree planting that would integrate well with the view to retain the open field aspect alongside the bridleway.
• Nature of the View:
• Brief, oblique view.</td><td></td></tr>
<tr><td>Duration: Long-term.</td><td>Reversibility: Reversible (40 year lifespan).</td></tr>
<tr><td colspan="2">Magnitude: Medium to Small (short-term); Small (medium and long-term)

In the short-term there would be direct views of the solar arrays which would be seen across the field in the middle ground of the view. The open aspect onto arable field to the east would remain over this short section of footpath. The solar arrays would be seen as a thin horizontal band of uniform height and appearance, with a somewhat utilitarian appearance. The low height of the solar arrays is such that the wooded skyline beyond the panels would still be visible above the top edge of the panels for most of the site. The view of the Proposed Development would only be experienced very briefly for the receptor from the bridleway before the footpath continues along a hedgerow lined corridor. It is also not at a natural stopping point along the route; as a result the magnitude of impact is considered to be reduced. The magnitude of impact would be medium to small.
In the long-term the proposed hedgerow and hedgerow tree planting along the western boundary of the Proposed Development would predominantly screen the solar arrays, such that the view from this section of bridleway would be similar to the baseline with a view across an arable field towards a hedge line. The magnitude of impact would be small.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="2">Effect: Moderate to Minor (short-term); Minor to Negligible (medium and long-term)

The effect would be moderate to minor adverse in the short term, considering the medium to high sensitivity and the medium to small level of impact. As the view is from a brief section of the route the effect is judged to be moderate to minor adverse.
In the long-term as planting establishes the overall change from the baseline view would be limited. The effect would reduce to minor to negligible adverse.</td></tr>
</table>

Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.

Viewpoint 7 (VP 7): View north-east from footpath along access track to Grove Farm (FP 50)

Grid Ref: 610616, 237541

The view is from an access track that is informally used as a public footpath, however the public footpath on the definitive map does not follow the access track but is across the cropped part of the field. The view is representative of views available to users of this public footpath and is from within the proposed access to the Main Site.

The photograph on Figure 11g demonstrates that there are open views across the field in the foreground with the buildings of Grove Farm visible. Trees and woodland north and south of Grove Farm screen views towards the Main Site, however the access track from Station Road is visible in the foreground.

Susceptibility to Change: High	**Value: Medium to High**
• Footpath users ▪ At this location, the views available over the surrounding landscape are a part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to footpath users where views contribute to the experience such that susceptibility to change is high. The view is not of a statutory designated landscape and is not from a recognised viewpoint. Overall, the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • No views of solar development.
  • Upgraded access track would be visible in the foreground.
• **Degree of contrast / integration:**
  • Views of the access track would be consistent with existing views of the access track.
• **Nature of the View:**
  • Open view
	• **Angle:** Direct
	• **Distance to Proposed Development:** approximately 700m to solar development, 0m to access track
	• **Extent of area over which changes would be visible:** approximately 350m of footpath

Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).
Magnitude: Negligible (short-term)**; Negligible** (medium and long-term) In the short- and long-term the proposed solar arrays and associated infrastructure within the two fields of the Main Site would not be visible. There would be close views of the access track which would be upgraded with new type 1 gravel surface that would be in keeping with the existing character of the access. The magnitude of change would therefore be negligible in the short- and long-term.	
Effect: Negligible (short-term)**; Negligible** (medium and long-term) The visual effect would be negligible adverse in the short- and long-term.	
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.	

Viewpoint 8 (VP 8): View north from public footpath north of Bentley (FP 40)

Grid Ref: 611346, 237263

The view is from a public footpath north of Bentley, looking north towards the Site from south of Potash Lane. The view is representative of users of the footpath, and of properties south of Potash Lane.

The photograph on Figure 11h demonstrates that there are open views across the field in the foreground towards the woodland and hedgerows along Potash Lane. There are glimpsed views through the hedgerow where there are narrow views into the western field of the Main Site.

Susceptibility to Change: High	**Value: Medium to High**
• Footpath users ▪ At this location, the views available over the surrounding landscape are a part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to footpath users where views contribute to the experience such that susceptibility to change is high. The view is not of a statutory designated landscape and is not from a recognised viewpoint. Overall, the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • Narrow view of solar arrays through gap in vegetation during winter, likely to be predominantly screened in summer months.
• **Degree of contrast / integration:**
  • The solar arrays would be predominantly screened by vegetation along Potash Lane, whilst there would be a glimpsed view of the solar arrays they would be seen as a similar dark tonal colour of a low height, partially assimilating with the darker colour tones of the intervening vegetation.
• **Nature of the View:**
	• **Angle:** Direct
	• **Distance to Proposed Development:** approximately 375m to fenceline
	• **Extent of area over which changes would be visible:** footpath south of the Site

• Open view across field	
Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).
Magnitude: Small (short-term)**; Negligible** (medium and long-term) In the short-term, there would be a narrow view of the solar arrays through a gap in the vegetation during winter, with this likely to have a greater degree of screening in the summer. The solar arrays would occupy a small part of the view with the open aspect across the field in the foreground retained. Vegetation along Potash Lane would screen most of the development and the dark uniform tonal colour of the panels would partially assimilate with the darker tones of the intervening vegetation. The solar arrays are of a low height and as such the wooded background of the view would remain. The magnitude of impact would be small. In the medium- and long-term the proposed woodland belt planting along the north side of Potash Lane and the proposed hedgerows to gap up the existing hedgerow would be established and would screen the solar arrays. Once the proposed planting is established the change in view would be negligible.	
Effect: Minor (short-term)**; Negligible** (medium and long-term) In the short term the effect would be minor adverse considering the medium to high sensitivity and small magnitude of impact. In the long term the effect would reduce to negligible.	
Adverse/ **Neutral**/ Beneficial: The introduction of the Proposed Development would be adverse in the short-term, and neutral in the long-term.	

Viewpoint 9 (VP 9): View south from public footpath near Bentley Park (FP 2)

Grid Ref: 611350, 238487

The view is south from a public footpath north of Church Farm, with the viewpoint at a point adjacent to the former railway line. The view is representative of views from the footpath but not of views from Church Farm. Church Farm is at a slightly more elevated position on the northern boundary of the Main Site, with views from upper storey windows over the field boundary vegetation into the Site.

The photograph on Figure 11i demonstrates that the public footpath is at a slightly lower elevation than the Site, and that this in combination with intervening vegetation along the northern boundary of the western field of the Main Site restrict views into the Site.

Susceptibility to Change: High • Footpath users ▪ At this location, the views available over the surrounding landscape are a part of the experience.	**Value: Medium to High** • Not a recognised viewpoint or view to or from a statutory designated landscape; and • Simple view across arable farmland.
Sensitivity: Medium to High The viewpoint is representative of views available to footpath users where views contribute to the experience such that susceptibility to change is high. The view is not of a statutory designated landscape and is not from a recognised viewpoint. Overall, the sensitivity to change is medium/high.	

Size / Scale of Effect:
• **Scale of Change in view:**
  • No change to the view.
• **Degree of contrast / integration:**
  • No change to the view.
• **Nature of the View:**
  • Open view.
	Geographical Extent:
	• **Angle:** Oblique
	• **Distance to Proposed Development:** approximately 300m to fenceline
	• **Extent of area over which changes to would be visible:** n/a

Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).
Magnitude: No change (short-term)**; No change** (medium and long-term)	

The intervening landform and vegetation would screen views of the Proposed Development.
Effect: Neutral (short-term)**; Neutral** (medium and long-term) There would be no change to the view.
Adverse/ **Neutral**/ Beneficial: The introduction of the Proposed Development would be neutral.

Viewpoint 10 (VP 10): View north from footpath crossing of railway line, east of Falstaff Manor (FP 19)

Grid Ref: 612181, 237424

The view is north from a public footpath as it crosses the railway line to the south-east of the eastern field of the Main Site. The view is a specific view from the footpath at the crossing, but also represents views likely to be experienced by rail users.

The photograph on Figure 11j demonstrates the extent of vegetation alongside the railway. In winter there is a glimpsed view through a narrow gap in the vegetation into the eastern edge of the eastern field of the Main Site. In summer the vegetation has a greater screening effect and this gap in the vegetation is not available. The view is brief and glimpsed, and the focus of views is on crossing the railway line, and not into the Site.

Susceptibility to Change: Medium	**Value: Medium to Low**
• Footpath users ▪ At this location, the views available over the surrounding landscape are not an important part of the experience.	• Not a recognised viewpoint or view to or from a statutory designated landscape. • View along railway infrastructure corridor.

Sensitivity: Medium to Low

The viewpoint is representative of views available to footpath users, but in a position where views across countryside are not an important part of the experience such that the susceptibility to change is judged to be medium to low. The view is of railway infrastructure in the foreground and as such the value is medium to low. Overall the sensitivity to change is medium/low.

Size / Scale of Effect:	**Geographical Extent:**

• **Scale of Change in view:**
  • Small change to narrow part of the view.
• **Degree of contrast / integration:**
  • The solar arrays would be seen in a gap through existing vegetation, with the wooded skyline beyond retained.
• **Nature of the View:**
	• **Angle:** Oblique
	• **Distance to Proposed Development:** approximately 185m to fenceline
	• **Extent of area over which changes would be visible:** specific view from footpath as it crosses the railway

• Glimpsed view through a gap in the railway corridor vegetation.	
Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).
Magnitude: Negligible (short-term)**; Negligible** (medium and long-term) In the short-and long term the magnitude of impact would be negligible. The Proposed Development would be partially visible but not in a direction where views of the countryside are the focus.	
Effect: Negligible (short-term)**; Negligible** (medium and long-term) The visual effect would be negligible adverse as a result of the medium to low sensitivity and the negligible magnitude of impact.	
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse in both the short-term and long-term.	

Viewpoint 11 (VP 11): View north-west from public footpath west of the A137 (FP 19)

Grid Ref: 612516, 237409

The view is from a public footpath west of the A137, looking in the direction of both the Main Site and the Substation Site. The view is representative of footpath users. The photograph on Figure 11k demonstrates that there are open views across the arable field in the foreground towards a treeline. High voltage pylons and power lines are a feature along the skyline. The Site is not visible as a result of the intervening vegetation.

Susceptibility to Change: High • Footpath users ▪ At this location, the views available over the surrounding landscape are a part of the experience.	**Value: Medium to High** • Not a recognised viewpoint or view to or from a statutory designated landscape; and Simple view across arable farmland.

Sensitivity: Medium to High

The viewpoint is representative of views available to footpath users where views contribute to the experience such that susceptibility to change is high. The view is not of a statutory designated landscape and is not from a recognised viewpoint. Overall, the sensitivity to change is medium/high.

Size / Scale of Effect:
• **Scale of Change in view:**
  • No change to the view.
• **Degree of contrast / integration:**
  • No change to the view.
• **Nature of the View:**
  • Open view.
	Geographical Extent:
	• **Angle:** Oblique
	• **Distance to Proposed Development:** approximately 300m to fenceline
	• **Extent of area over which changes to would be visible:** n/a

Duration: Long-term.	**Reversibility:** Reversible (40 year lifespan).

Magnitude: No change (short-term)**; No change** (medium and long-term)

The intervening landform and vegetation would screen views of the Proposed Development.

Effect: Neutral (short-term)**; Neutral** (medium and long-term) There would be no change to the view.
Adverse/ **Neutral**/ Beneficial: The introduction of the Proposed Development would be neutral.

Viewpoint 12 (VP 12): View south-west from public footpath Maltings House (FP 18)

Grid Ref: 612507, 238185

The view is from a public footpath to the west of Maltings House, looking in the direction of the Substation Site, the point of connection, and the Main Site.

The photograph on Figure 11l demonstrates that there are open views from the public footpath towards the treeline and woodland cover west of the field. High voltage pylons and power lines are prominent in the view, with the pylon in the photograph being the point of connection for the Proposed Development. Gantries, overhead lines and other infrastructure associated with the railway line are visible in front of the treeline but partially screened by the landform due to the lower-lying position of the railway. There are overhead electrical lines above the footpath not shown in the photograph which are a prominent feature of the view. The Main Site is not visible as result of vegetation to the west of the field alongside the railway. The Substation Site is visible along the western edge of the field in front of the railway line.

Susceptibility to Change: High	**Value: Medium**

• Residents
  ▪ Have a high susceptibility to change
• Footpath users
  ▪ At this location, the views available over the surrounding landscape are a part of the experience.
	• Not a recognised viewpoint or view to or from a statutory designated landscape; and
	• Long-distance view.

Sensitivity: Medium to High

The viewpoint is representative of views available to footpath users where long distance views contribute to the experience such that susceptibility to change is high. The view is not of a statutory designated landscape, and is not from a recognised viewpoint such that the value is medium. Overall the sensitivity to change is medium/high.

Size / Scale of Effect:	**Geographical Extent:**
• **Scale of Change in view:** • Introduction of access track and DNO substation to the background of the view.	• **Angle:** Direct view • **Distance to Proposed Development:** approximately 180m to the DNO substation

<table>
<tr><td>

Access track would be at grade with the existing topography such that it would not be prominent.
DNO substation located in a depression such that only upper parts of the infrastructure would be visible.

Degree of contrast / integration:

The infrastructure of the DNO substation would be seen in the context of views of other similar gantries and infrastructure associated with the railway line, and views of the high voltage pylons. However, due to its closer proximity there would be a degree of contrast.
In the long-term the proposed planting around the DNO substation would screen the facility from the footpath.

Nature of the View:

Open view across the field in the foreground.

</td><td>

Extent of area over which changes would be visible: Along the footpath where the viewpoint is located, and from Maltings House

</td></tr>
<tr><td>Duration: Long-term.</td><td>Reversibility: Reversible (40 year lifespan).</td></tr>
<tr><td colspan="2">Magnitude: Medium (short-term); Small (medium and long-term)

In the short-term there would be direct views of the DNO substation and access track. The solar development at the Main Site would not be visible due to the extent of intervening vegetation. The access track would be at grade with the existing topography and therefore would not be prominent in views. The DNO substation comprises gantries and transformers of an industrial and utilitarian appearance. The ground level of the substation would be screened by the intervening landform due to its location in a depression on the edge of the valley to its west. The upper parts of the substation infrastructure however would be visible. These would be seen in the context of the existing infrastructure along the railway line, but would be at a greater concentration in a single location such that they would be more prominent. The removal of the tree adjacent to the pylon at the point of connection would not change the overall characteristics of the view. The magnitude of impact would be medium.
In the long-term the proposed planting around the perimeter of the DNO substation would have established and would screen the infrastructure within the compound. This vegetation would be seen as an extension to the existing woodland to its south. The magnitude of impact would reduce to small.</td></tr>
</table>

Effect: Moderate (short-term); **Minor to Negligible** (medium and long-term) In the short-term the visual effect would be moderate adverse considering the medium to high sensitivity and medium magnitude of impact. The Proposed Development would be a relatively incongruous feature despite the context of the railway infrastructure. In the long-term the visual effect would reduce to minor to negligible adverse as the proposed planting establishes and wholly screens the DNO substation.
Adverse/ Neutral/ Beneficial: The introduction of the Proposed Development would be adverse.