

FINAL

LANDSCAPE & VISUAL APPRAISAL

relating to

Fen Dyke Solar Farm, Spalding

on behalf of

Integrum SPV 21004 limited (integrum)

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1 INTRODUCTION

- 1.1 Huskisson Brown Associates (HBA) is a firm of Chartered Landscape Architects, established in 1987 and registered since then with the Landscape Institute. HBA has been a member of the Institute of Environmental Management and Assessment since 1992.
- 1.2 HBA has undertaken a range of environmental planning and landscape and visual assessment, appraisal and design work for many clients including public bodies, private companies and individuals on projects including commercial, industrial, retail, recreational, healthcare, agricultural, infrastructure and residential schemes. HBA also has experience in providing development management advice to Local Planning Authorities.
- 1.3 HBA has been commissioned by Integrum SPV 21004 limited (integrum) to advise on landscape and visual matters and prepare a Landscape and Visual Appraisal to inform the design and subsequently assess the potential landscape and visual effects of the proposed construction and operation of a solar farm and Battery Energy Storage System (BESS), vehicular access, internal access tracks, landscaping, boundary treatment, cabling and associated infrastructure.
- 1.4 The proposal has been informed by landscape and visual considerations as part of an iterative design/assessment process, to help inform the parts of the Site in which solar panels and associated infrastructure might be able to be accommodated and any potential adverse landscape and visual effects avoided or minimised, including through mitigation.
- 1.5 The Site is formed of four regularly shaped agricultural fields located approximately 1.5km to the southwest of the village of Sutton St James and approximately 13km to the southeast of Spalding. The Site location and its surrounding landscape context are illustrated in the accompanying [Figure HBA 1](#) (Landscape Context) and [Figure HBA 2](#) (Aerial Context).
- 1.6 Current guidance on Landscape and Visual Impact Assessment (LVIA) and Landscape and Visual Appraisal (LVA) is set out in The Guidelines for Landscape and Visual Impact Assessment – Third Edition (GLVIA3). This places an *“emphasis on likely significant effects and stresses the need for an approach that is proportional to the scale of the project that is being assessed and the nature of the likely effects”*. The main issues of landscape and visual relevance are therefore addressed in the following LVA report.
- 1.7 GLVIA3 (Chapter 1, Para 3.3 and Table 3.1) makes a distinction between a Landscape and Visual Impact Assessment (LVIA) that is carried out as a part of an Environmental Impact Assessment (EIA) where there is a requirement to determine the significance of effects, and LVIA that is carried out as part of an appraisal of development proposals (ie. non-EIA) where the identification of the significance of effects (in terms of the EIA regulations) is not required. An LVA can be more informal but shares the essence of the approach adopted in EIA. As the proposal that is the subject of this application is not subject to EIA, the report has been termed an appraisal.
- 1.8 The preparation of this LVA has involved both desk-based and site work. Site work involved a walkover review of the site and walking the Public Rights of Way and local roads in the area to help determine the landscape character and visual context of the site and surrounding area. This enables an evaluation to be made of the degree of change that would be expected to arise from the proposed development and included ground review of initial Zone of Visual Theoretical Visibility mapping to check likely visibility on the ground. An initial

site visit was carried out on 11th April 2024 in sunny weather conditions and when vegetated was mostly de-foliated and therefore close to winter conditions with highest visibility. A second visit carried out on 19th August 2024 (in overcast weather) when vegetation was fully foliated, in order to understand the seasonal variation in visibility by vegetation.

- 1.9 The methodology for the assessment of potential landscape/townscape and visual effects is based on principles of good practice from GLVIA3 and is set out in full in [Appendix 1](#).
- 1.10 The following documents and sources are considered primary ones of relevance to the landscape and visual context of the site and its immediately surrounding area:
- *National Planning Policy Framework (Revised December 2023);*
 - *Planning Practice Guidance Notes;*
 - *National Design Guide (January 2021);*
 - *South East Lincolnshire Local Plan 2011-2036 (2019);*
 - *National Character Area Profile: 46. The Fens, Natural England (2015);*
 - *East Midlands Regional Landscape Character Assessment (2010);*
 - *The Historic Landscape Characterisation Project for Lincolnshire, John Lord and Alastair MacIntosh, Lincolnshire County Council. With contributions from Adam Partington (September 2011);*
 - *Strategic Landscape Capacity Study for South Holland District Council (2003);*
 - *Online review of MAGIC website, Historic England website, historic Ordnance Survey mapping, Google Earth, and Google Maps;*
 - *An Approach to Landscape Character Assessment, by Christine Tudor, Natural England (October 2014);*
 - *Guidelines for Landscape and Visual Impact Assessment, (GLVIA3) published in April 2013 by the Landscape Institute and the Institute of Environmental Management and Assessment;*
 - *Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals. (Currently under review) The Landscape Institute. (September 2019);*
 - *TGN 02-21 Assessing landscape value outside national designations. The Landscape Institute (May 2021); and*
 - *LITGN-2024-01 Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3). The Landscape Institute (August 2024).*

Purpose and Structure of the LVA

- 1.11 The purpose of the LVA is to identify and assess the predicted landscape and visual effects of the Proposed Development. The baseline study has also informed the layout and landscape design strategy for the Site.
- 1.12 The LVA records and assesses the landscape and visual baseline, including reviewing relevant published character studies and other background documents and identifying the key landscape and visual attributes, character and sensitivities of the site and its surroundings. It identifies relevant landscape and visual receptors and determines the

sensitivity to change of those receptors to the specific development proposed in the accompanying application. It describes and assesses the predicted landscape effects of the proposal and separately describes and assesses the predicted visual effects of the proposal. Where appropriate, landscape and visual mitigation measures are also identified. It provides a summary and reaches overall conclusions on likely landscape and visual effects.

- 1.13 A number of figures, viewpoint photography and photomontages support the LVA, and are referenced throughout the text and appended to the report.
- 1.14 The following appendices are also referred to throughout the LVA:
- Appendix 1: LVA Methodology
 - Appendix 2: Visual Assessment Table
 - Appendix 3: Photographic Evidence and Methodology Statement for Visualisations

Consultation

- 1.15 Pre-application advice has been sought by the Applicant in connection with the Site and Proposed Development (ref: PE-00135-22). The advice stated that:

"it is noted that there are long views of and over the site, thus the development of a solar farm of this scale will have some degree of visual impact on landscape character. However, there is scope to incorporate mitigation in the form of substantial landscaping given the scale of the site. There are a small number of properties within 1km of the site, but there are at such a distance that their outlook would not be materially impacted."

- 1.16 The LVA identifies and assesses the effects of the Proposed Development upon both landscape character and public views and describes the proposed approach to mitigation. It finds that subject to the proposed mitigation proposals being delivered and managed, landscape and visual effects could be mitigated to a degree that would help to embed the scheme into its local setting and character in accordance with published character guidance and policy.
- 1.17 An EIA screening report was submitted, and a screening decision issued by South Holland District Council (ref: PE-00268-24). This advised that the Proposed Development would not be subject to EIA. With regard to landscape and visual matters, the screening decision considered that significant effects were not likely and commented that *"The height (scale) of the proposed development would mitigate the extent of the Zone of Theoretical Influence. An LVIA (made to GLVIA3) would be required."*

2 LANDSCAPE PLANNING POLICY CONTEXT

- 2.1 A summary of planning policy and designations relevant to the landscape and visual context of the Site and against which the scheme proposals are to be tested (in landscape and visual terms) is set out below.

National Planning Policy Framework (NPPF)

- 2.2 The NPPF (revised December 2023) sets out the Government's national planning policy for England. It is a material consideration in determining planning applications (Paragraph 2) and should be read as a whole (including its footnotes and annexes) (Paragraph 3). Its overall aim is to promote sustainable development (Paragraph 7).
- 2.3 Paragraph 8 states: *"the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supporting ways (so that opportunities can be taken to secure net gains across each of the different objectives).*
- *an economic objective: ...*
 - *a social objective: ...*
 - *an environmental objective: to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy".*
- 2.4 Paragraph 135 states: *"Planning policies and decisions should ensure that developments:*
- ...*
 - b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping.*
 - c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change;*
 - ..."*
- 2.5 With regard to 'Meeting the challenge of climate change, flooding and coastal change' NPPF sets out the following requirements of relevance to the Proposed Development:
- Paragraph 160: *"To help increase the use and supply of renewable and low carbon energy and heat, plans should:*
 - a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts);*
 - ..."*
 - Paragraph 162: *"In determining planning applications, local planning authorities should expect new development to:*
 - ...*
 - b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption."*

- Paragraph 163: *“When determining planning applications for renewable and low carbon development, local planning authorities should:*
...
b) approve the application if its impacts are (or can be made) acceptable...”

2.6 Paragraph 180 requires that *“Planning policies and decisions should contribute to and enhance the natural and local environment by:*

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) ...”*

Planning Practice Guidance (PPG)

2.7 PPG supports and informs the NPPF and replaces a number of earlier planning practice guidance documents and government circulars. The guidance relating to Natural Environment explains key issues in implementing policy to protect and enhance the natural environment.

2.8 Guidance on ‘Renewable energy and low carbon energy’ addresses the question of *“What are the particular planning considerations that relate to large-scale ground-mounted solar photovoltaic farms”* noting that *“The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively.”* Particular factors that need to be considered by local planning authorities include:

- ...
- *“where a proposal involves greenfield land, whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays...”*
- *that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;*
- *the proposal’s visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;*
- *the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;*
- *the need for, and impact of, security measures such as lights and fencing;*
- ...

- *the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;*" (Paragraph: 013, Reference ID: 5-013-20150327)

2.9 It further states that: *"The approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero."*

Development Plan

2.10 The South East Lincolnshire Local Plan 2011-2036 was adopted in March 2019 and produced by the South East Lincolnshire Joint Strategic Planning Committee; a partnership between Boston Borough Council, South Holland District Council and Lincolnshire County Council. Policies of relevance to the LVA are set out below.

- Policy 2: Development Management

"Proposals requiring planning permission for development will be permitted provided that sustainable development considerations are met, specifically in relation to:

- 1. size, scale, layout, density and impact on the amenity, trees, character and appearance of the area and the relationship to existing development and land uses;*
- 2. quality of design and orientation;*
- 3. maximising the use of sustainable materials and resources;*
- ...*
- 6. impact upon neighbouring land uses by reason of noise, odour, disturbance or visual intrusion;*
- ...*
- 8. impact or enhancement for areas of natural habitats and historical buildings and heritage assets; and*
-"*

- Policy 28: The Natural Environment

"A high quality, comprehensive ecological network of interconnected designated sites, sites of nature conservation importance and wildlife-friendly greenspace will be achieved by protecting, enhancing and managing natural assets..."

- Policy 31: Climate Change and Renewable and Low Carbon Energy

"...B. Renewable Energy

With the exception of Wind Energy the development of renewable energy facilities, associated infrastructure and the integration of decentralised technologies on existing or proposed structures will be permitted provided, individually, or cumulatively, there would be no significant harm to:

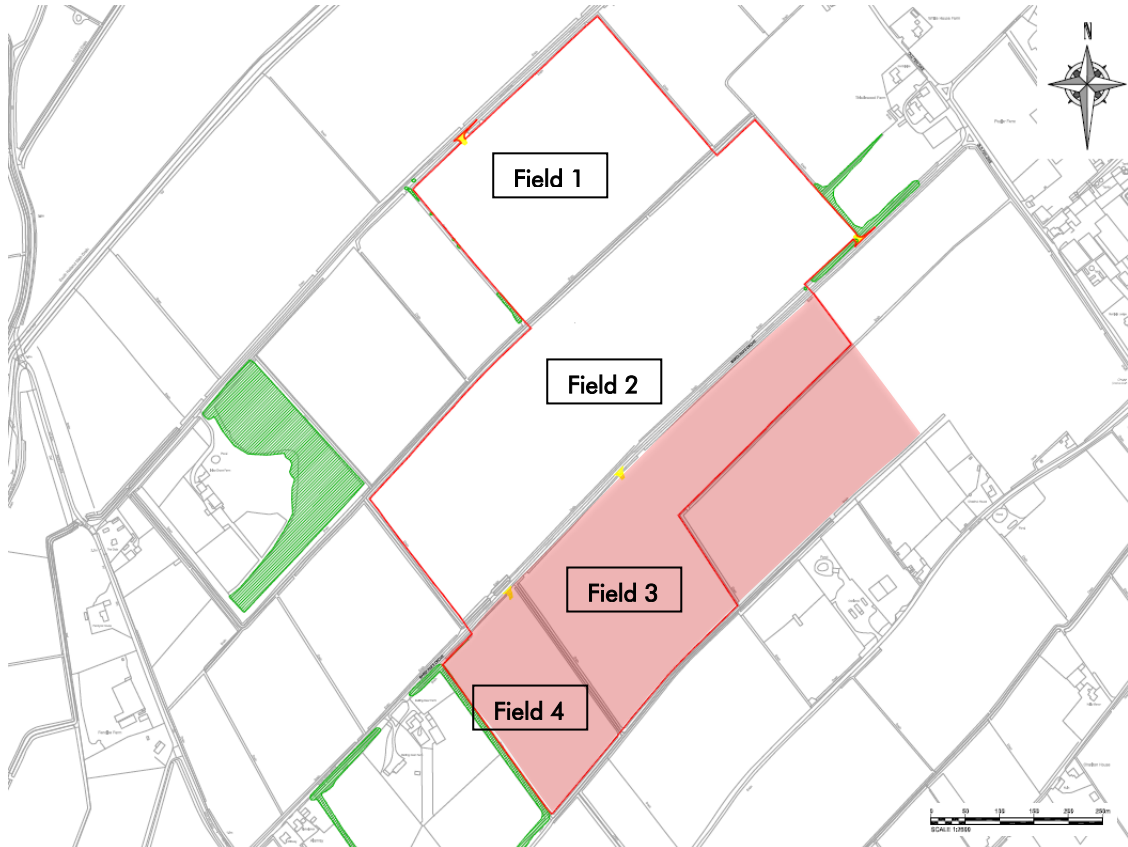
- 1. visual amenity, landscape character or quality, or skyscape considerations;*
- 2. residential amenity in respect of: noise, fumes, odour, vibration, shadow flicker, sunlight reflection, broadcast interference, traffic;*

3. ...

7. *the natural environment...*

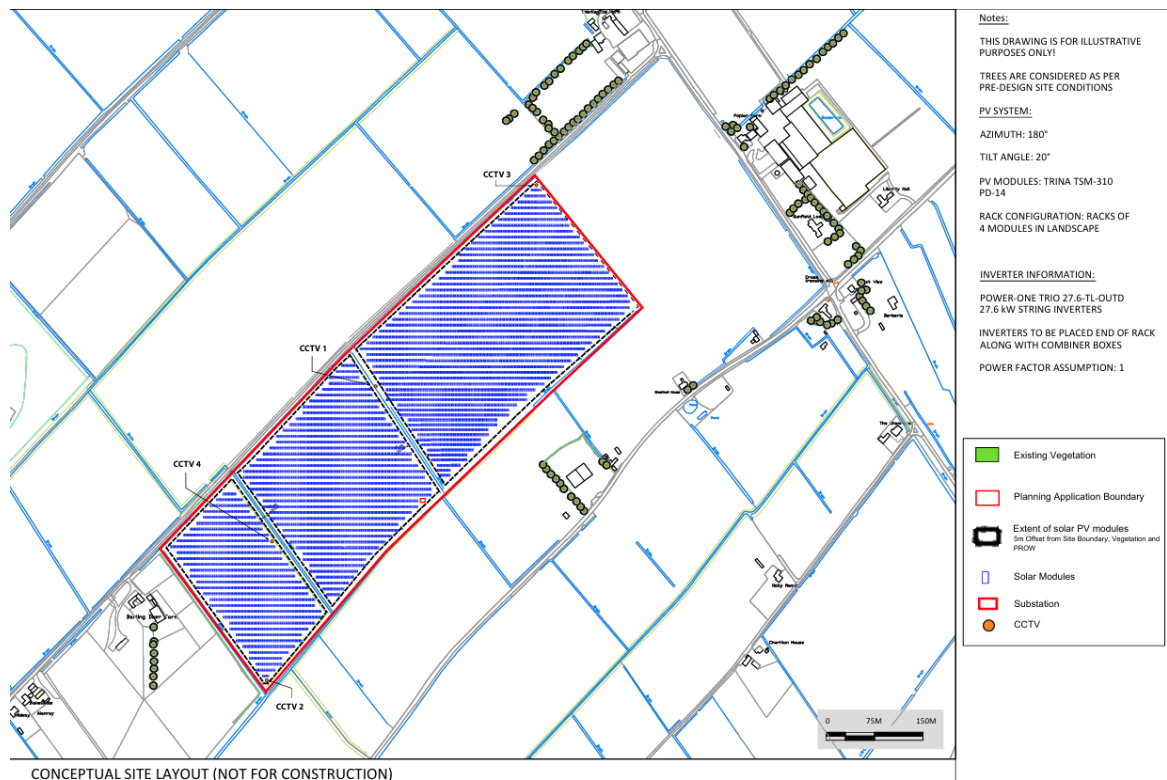
Planning History of Relevance to the LVA

- 2.11 Fields 3 and 4 and an adjoining field to the south of Field 3 were granted planning approved in 2014 for the *“Change of use of land from agriculture to mixed use for agriculture and use of the generation of renewable energy (solar) with the associated equipment, access tracks and fencing – resubmission of H20-00017-14”* (planning application ref: H20-0764-14). The application red line boundary of the approved scheme is illustrated in relation to the Site now subject of this LVA, on Report Figure 1 below.



Report Figure 1 - Red line boundary of the Site that is subject of this planning application and LVA (solid red line) compared to red line boundary of the previously approved application H20-0764-14 (hatched with transparent red/pink fill)

- 2.12 The development that was given planning permission included approximately 56,600 No. fixed solar panels of up to 2.9m in height and associated infrastructure including inverters, transformers, CCTV and a 3.9m high brick or stone clad substation building with pitched tiled roof. Access tracks were proposed to the perimeter of each field with a hedgerow with intermittent trees and 1.8m high wooden post and stock proof fence proposed to enclose the red line site boundary, supplemented with a 1.6m wattle fence along the eastern boundary. The solar panels were proposed to be offset from the site boundary and vegetation by 5m. An extract of the Site Layout Plan that was approved under planning application H20-0764-14 is provided below for reference.



Report Figure 2 – Extract of Site Layout plan for approved application H20-0764-14

Other Planning Applications of Potential Relevance to the LVA

- 2.13 As part of the baseline study, a planning application at one other site has been identified with the potential to give rise to cumulative landscape and / or visual effects with the subject site. This is:

Tydd Solar Farm, Land East of Guanockgate Road, Sutton St Edmund, Spalding (South Holland District Council Planning Application Ref: H19-0329-24).

- 2.14 This is an application for a “Temporary ground mounted solar photovoltaic (PV) farm with battery storage, substation and associated works” located to the east of the village of Sutton St Edmund and west of Gorefield, just over 3.1km to the southwest of the Site.
- 2.15 It is considered that the potential for cumulative landscape and visual effect with the Proposed Development on the Site is very limited. This is on account of the distance between the Tydd Solar Farm application site and the Site, the separation of both sites by an expanse of agricultural land including built forms and vegetation belts and the lack of elevated landform that might allow views across both sites.

Meridian Solar Farm

- 2.16 This is a proposed solar farm located to the south of Spalding and Holbeach that constitutes a Nationally Significant Infrastructure Project (NSIP). The project is still in the consultation stages and no fixed details have been provided into the public domain to accurately understand its extent, height and impacts. It has therefore only been considered in a very generic way within this LVA.

3 BASELINE CONDITIONS

Site location and context

- 3.1 The site and its local context are illustrated on *Figures HBA 1 Landscape Context* and *HBA 2 Aerial Context*.
- 3.2 The Site extends to an area of 44.2 hectares (ha) and comprises primarily agricultural land located approximately 1.5km southwest of the village of Sutton St James and approximately 2.17km southeast of Holbeach St Johns. The Site forms part of a wider area of predominantly arable farmland between Old Fen Dike to the east and New Fen Dike to the west and is crossed by a series of droves that run east to west between the two. Inley Drove lies immediately north of the Site. Bardling's Drove runs east to west through the Site. Broad Gate lies approximately 180m south of the Site.
- 3.3 The Site is almost entirely bordered by watercourses and subdivided into four separate generally regular shaped fields by virtue of the existing drainage system of dykes and ditches. For the purpose of this assessment, the fields within the Site are numbered 1 - 4. This numbering is shown on the accompanying *Figure HBA 2 Aerial Context* and the Landscape Strategy Plan – Overall (Drawing number HBA/943/001 revision J) included at *Figure HBA 8*.
- 3.4 Field 1 is the northernmost field of the Site and lies on the southern side of Inley Drove, separated from the drove by a drainage ditch and adjoining ditches on all sides.
- 3.5 Field 2 is the largest field on site covering an area of approximately 18.46 ha and lying to the south of Field 1, the two fields separated by a drainage ditch. Bardling's Drove runs to the southern edge of Field 2. Field 2 is bordered by ditches on all sides, the eastern boundary to Field 2 also adjoining a hedgerow. The Site boundary also includes the roadside hedge to Bardling's Drove at the northern side of Field 2.
- 3.6 Fields 3 and 4 lie to the south of Bardling's Drove, the two fields being separated by a drainage ditch. Field 3 is L shaped and adjoins ditches on all but its shortest northern boundary.
- 3.7 Field 4 lies to the south of Field 3 and adjoins the hedged boundary to Barling Deer Farm along its southern boundary, the remaining three field boundaries addressing ditches.

Topography and hydrology

- 3.8 The site is located within the flat landscape of the Fens, a freshwater peat-forming landscape extending from Lincolnshire to Suffolk that has been drained and is supported by a system of dykes, drains, channels and pumps to create a fertile agricultural landscape. The fields of the Site are typical of the regular pattern of drains and ditches across the area.
- 3.9 Four of the drains that adjoin the Site are unnamed. South Holland Main Drain is located 250m north of the Site.
- 3.10 There is little in terms of level change across the Site and its surrounding area, with levels within a 3km radius of the site ranging from 0 to 3m Above Ordnance Datum (AOD).

Land cover and vegetation

- 3.11 The majority of the site is arable farmland with grassed verges and vegetated ditches which are occasionally dotted with individual small native trees and shrub clumps. Part of the northern roadside to Bardling's Drove is hedged but otherwise the Site is devoid of significant vegetation (in landscape and visual terms) and is typical of the open working agricultural

landscape of the wider area.

- 3.12 Beyond the Site, the curtilages to farmsteads and dwellings are commonly contained by a range of poplar and coniferous shelter belts and hedgerows that allied to the flat overall landform of the area, limits visibility across the landscape.
- 3.13 West of the Site, the landscape generally has a greater level of tree cover, notably on account of areas of woodland around Inley Drove Farm and hedgerows and tree/woodland belts around Bardling's Deer Farm and along most of the route of New Fen Dike. To the north of Old Fen Dike there are numerous Poplar shelter belts around the access roads and land at Ben Burgess Holbeach. To the east of the Site, there is roadside tree and hedgerow planting at the eastern end of Inley Drove and Bardling's Drove, whilst the landholding at Poplar Farm Flowers on the eastern side of Old Fen Dike is contained by hedgerows and Poplar belts.

Nature conservation and biodiversity

- 3.14 There are no statutory ecological designations or Local Nature Reserves located on the Site or within 10km of the Site.
- 3.15 The nearest designated Shrubberies Local Nature Reserve (LNR) is located 7.4km north-east of the Site and there are two Nitrate Vulnerable Zones are within 10km of the Site, one 7km west and another 7.4km north-east.
- 3.16 The Site lies adjacent to areas recorded in the Priority Habitat Inventory as Coastal and Floodplain Grazing Marsh.
- 3.17 Three native hedgerows adjoining the boundary to the Site are Habitats of Principal Importance (under Section 41 of the NERC Act 2006). No irreplaceable habitats are present within the Site.
- 3.18 Detailed information on habitats and species is set out in the Ecological Impact Assessment and the Biodiversity Net Gain Plan (with statutory metric) by MKA Ecology submitted with the planning application. This indicates that the ecological value of the Site lies primarily in its ditch habitats and its provision of resources for farmland birds and badgers. A breeding bird survey (MKA Ecology Ltd, 2024) identified a total of 50 species, 31 of these being classified as notable species on the basis of their local or national designations including woodpigeon and skylark. Two badger setts were identified onsite in September 2022, however, a subsequent walkover in May 2024 found only one of these setts to be active.

Settlement and built form

- 3.19 The Site is surrounded by multiple farms, including Wright R J Ltd 430m to the southwest on New Fen Dike, Thistlewood Farm 180m to the east and Poplar Farm Flowers Ltd 290m to the east both on Old Fen Dyke, Inley Drove Farm adjoining the western corner of Field 2, and Barling Deer Farm immediately west of Field 4 on Bardling's Drove. The farms and their buildings are mixed in terms of their character, scale and quality, with Poplar Farm Flowers comprising a range of large scale glasshouses and metal framed cold store/warehouses and Wright R J Ltd also comprising a range of large metal framed and clad agricultural sheds. Inley Drove Farm and Barling Deer Farm are smaller in scale and set back from the highway beyond native hedges and trees. To the south of the Site on the northern side of Broad Gate, Lift and Shift Ltd occupy a former agricultural shed with a large storage yard of shipping containers to the north and a residential dwelling also located within this area.

- 3.20 There are numerous scattered dwellings in the local area, including along Broad Gate to the south and Old Fen Dyke to the east. These are predominantly detached single and two storey properties, set back from the highways and contained within gardens bounded by a range of hedges, shelter belts and ornamental planting. Some of the properties on the eastern side of Old Fen Dyke have more open garden frontages. Materials are mostly red brick and cream/white coloured render.
- 3.21 There is some influence from existing infrastructure including overhead cables across the Site and across the wider landscape as well as distance wind turbines to the south, however these do not overly detract. This is a settled and working landscape and therefore human influence is noticeable both visually and audibly.

Public Rights of Way and recreation

- 3.22 There are no Public Rights of Way crossing or adjoining the Site. There are relatively few Public Rights of Way in the local landscape overall, the available routes all following drains and being bridleways and therefore available for use by pedestrians, equestrians and cyclists. These are:
- **Bridleway SuSJ/2/3** which follows the top of the southern bank of South Holland Main Drain between New Fen Dyke at Leeds Gate Bridge in the west and Old Fen Dyke at Bell's Bridge in the east and lies approximately 250m north of the northern Site boundary and Field 1 at the closest point.
 - **Bridleway SuSJ/2/2** follows the top of the southern bank to South Holland Main Drain east of Old Fen Dyke beyond Bell's Bridge. **Bridleway Gedy/20/1** follows the northern bank of South Holland Main Drain in the same location.
 - **Bridleway Flee/7/1** and **bridleway Flee/8/2** follow South Holland Main Drain west of New Fen Dyke and Leeds Gate Bridge running parallel to Gedney Hill Gate to the pumping station before heading west to Langary Gate Road and Coy Bridge.
 - **Bridleway SuSJ/1/1** lies approximately 1.35km south of the Site's southern boundary (Field 4) and follows Bad Gate Drain running parallel to Birds Drove between Old Fen Dyke and New Fen Dyke.
- 3.23 The above Public Rights of Way are illustrated on [Figure HBA 1](#) Landscape Context.
- 3.24 No promoted recreational routes were noted.
- 3.25 There is no open access land or publicly accessible open space on or adjoining the Site.

Historic Landscape

- 3.26 Extracts of historic Ordnance Survey (OS) maps are shown on the Historic Regression Mapping at [Figure HBA 3](#). These indicate that whilst the overall structure of east-west droves and geometric fields has been evident since the late 1800's, there has been an increase in the number and sizes of farmsteads and the consolidation of smaller fields and restructuring of minor ditches to create larger fields sizes on both the Site and nearby areas. The enclosure of farmsteads with tree planting (as is evident in the landscape today) is also indicated on historic mapping.
- 3.27 A historic landscape characterisation (HLC) has been carried out for the county and is reported in 'The Historic Character of the County of Lincolnshire' (September 2011) by Lincolnshire Country Council. The HLC dataset records present and past landscape types and divides the county into ten Character Areas, each Character Area being complemented by subsidiary Character Zones.

- 3.28 The Site lies at the eastern edge of Regional Character Area 9: The Fens, where the landscape history is described for the Fens to the south of Spalding:

"...The earliest reclamations appear to have been undertaken by the settlements on the Townlands, which built dykes and drains to the south-east. The place-names, such as Holbeach Drove, indicate that this engineering work was undertaken in order to provide access to grazing land for cattle... Although these fields have been subject to a great deal of consolidation over the past fifty years, the essential pattern remains intact to this day.

Although the most far-reaching changes to this landscape occurred centuries ago, the landscape has continued to evolve during the last fifty years. Since the Second World War the increasingly mechanised nature of agriculture has necessitated the removal of field boundaries to create larger fields that can more easily be worked by machinery, such as combine harvesters."

- 3.29 Whilst sharing the same name, it should be noted that the Regional Character Area of The Fens recorded in the HLC encompasses a different geographic area to 'The Fens' National Character Area published by Natural England and discussed subsequently in this LVA.

- 3.30 With regard to Legibility, the HLC describes that:

"The historic wetland natural heritage of the Fens has largely been lost under the modern landscape of intensively farmed arable land. However, the successive phases of drainage, and the techniques used to keep the land dry, can all be identified in the area today. The hierarchy of drainage channels in the area remains largely unchanged from its nineteenth-century form, although individual field drains are much reduced in number.

- 3.31 Drivers of Change are considered in the HLC, the methodology noting how *"Perhaps the most important underlying principle of HLC is that the landscape is not static. Just as former landscapes have been superseded, so the modern landscape will change in the future"*. The HLC does not make judgements on the desirability of change in the modern landscape but identifies factors which may cause changes to the landscape in the future. Drivers of Change for The Fens are recorded in the HLC as including *"Construction of new energy production facilities – especially wind power"* and *"Creation of associated energy infrastructure, such as pylons and substations"*.

- 3.32 The Site lies within Character Zone FEN2 The Eastern Fens, where it is described that *"...Much of the planned enclosure landscape survives to this day, although this survival is probably due to the necessity of retaining field boundary drains to ensure the continued viability of the agricultural land. Certainly, throughout the character zone there is a strong feeling of openness, with few hedges demarcating fields... "*

- 3.33 There are no designated heritage assets on or adjacent to the Site. The nearest heritage assets are:

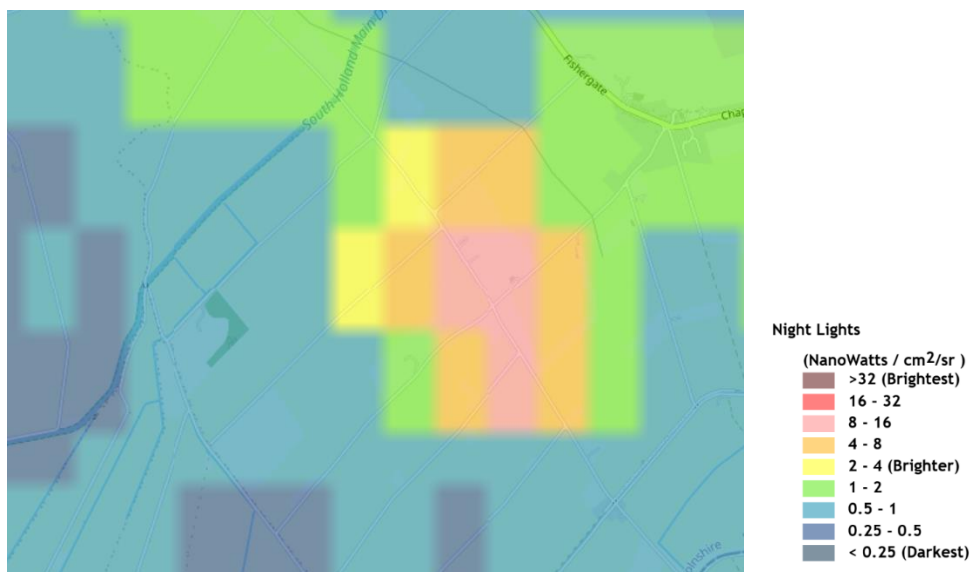
- 'Boundary Cross, Old Fen Dike' scheduled monument (ref. 1010672). Located approximately 350m east of the Site and associated with the Grade II listed building 'Remains of Cross about 20 meters North West of Cross' (ref. 1359248);
- Sandy Gate Farmhouse, Grade II listed (ref. 1064543). Located approximately 1km southeast of the Site.

Perceptual Qualities

- 3.34 CPRE The Countryside Charity produced a Tranquillity Map of England (February 2007) that

provides a broadbrush study of relative tranquillity levels based upon "Remoteness from people, habitat type, presence and visibility of rivers and woodlands, presence and visibility of unnatural features as detractors, openness of the landscape, overhead skyglow and identification of noise sources." The Site lies in an area that is above the median point on a spectrum of relative tranquillity ranging from "most tranquil" to "least tranquil". The "most tranquil" areas coinciding with the areas of England that are most remote from the centres of population.

- 3.35 England's Light Pollution and Dark Skies interactive map (2016) was also prepared by CPRE The Countryside Charity and is based upon satellite data captured in September 2015 and records the level of radiance shining up into the night sky. The recorded night light values around the Site fall broadly in the middle of the spectrum recorded, with lower levels of night lights recorded through the western side of the Site (0.5-1 nanowatts/cm²/sr), becoming brighter towards Poplar Farm Flowers and Old Fen Dike (4-8 nanowatts/cm²/sr) in the east. Darker areas were recorded to the south and west of the Site.



Report Figure 3 - Extract from CPRE Light Pollution and Dark Skies Map (2016) with site location added by HBA

- 3.36 There are no major transport or rail corridors in the locality. Noise and movement in the landscape arises from traffic on the network of rural roads and associated with farming activity. Whilst there is a perception of this being a working landscape and human influence is frequently visible, there is a sense of relative tranquillity and peace and quiet on the Site and within the local rural landscape.
- 3.37 The flat topography and strong geometric ground patterns of ditches, fields and droves in the landscape are not dramatic but contribute to a sense of place.
- 3.38 The Site is generally devoid of built forms save for nearby timber mounted telephone and electricity lines, however there is a range of styles and types of buildings and structures across the local landscape including multi-coloured storage containers at Lift and Shift Ltd (off Broad Gate) and large-scale units and glasshouses at Poplar Farm. Residential properties and farmsteads are often contained by shelter belt screening, but this is typically non-native conifers giving a suburbanised appearance in their own right. There are also pockets of works and yards in the nearby area with hardstandings providing parking areas for cars and large agricultural vehicles and a range of outbuildings.

Published Landscape Character Assessments

- 3.39 Landscape Character is defined in GLVIA3 as:

"A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse".

- 3.40 The general hierarchy of the published landscape character studies relevant to the Site and its surroundings are set out below. Relevant Landscape Character Areas are mapped on [Figure HBA 4](#).

National Landscape Character

- 3.41 Natural England has divided the country into 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.
- 3.42 At this very broad landscape scale, the site lies within **NCA 46 – The Fens** which is described as *"a distinctive, historic and human influenced wetland landscape lying to the west of the Wash estuary, which formerly constituted the largest wetland area in England. The area is notable for its large-scale flat, open landscape with extensive vistas to level horizons..."*
- 3.43 Key characteristics of NCA 46 are identified as including:
- *"Expansive, flat, open, low-lying wetland landscape influenced by the Wash estuary, and offering extensive vistas to level horizons and huge skies throughout, provides a sense of rural remoteness and tranquillity.*
 - *Overall, woodland cover is sparse, notably a few small woodland blocks, occasional avenues alongside roads, isolated field trees and shelterbelts of poplar, willow and occasionally leylandii hedges around farmsteads, and numerous orchards around Wisbech. Various alders, notably grey alder, are also used in shelterbelts and roadside avenues.*
 - *Open fields, bounded by a network of drains and the distinctive hierarchy of rivers (some embanked), have a strong influence on the geometric/rectilinear landscape pattern. The structures create local enclosure and a slightly raised landform, which is mirrored in the road network that largely follows the edges of the system of large fields. The drains and ditches are also an important ecological network important for invertebrates, fish including spined loach, and macrophytes."*

Regional Character Assessment

- 3.44 The East Midlands Regional Landscape Character Assessment (LDA Design 2010) was prepared on behalf of the East Midlands Landscape Partnership to increase understanding of the region's varied landscape. The site lies in **Regional Landscape Character Type Group 2: Fenland and Fenland Margins**, and **Sub-area 2b: Planned and Drained Fens and Carrlands**.
- 3.45 Key characteristics of the character area include:
- "...*
- *Consistently low lying terrain and simple palette of land uses and landscape features gives visual unity and strong sense of identity;*
 - *Large scale open landscape of flat farmlands with extensive and uninterrupted vistas to distant horizons beneath vast skies;*

- *18th and 19th century enclosure characterises historic landscape patterns underpinned by complex history of drainage and enclosure stretching as far back as the late Saxon period in some places;...*
- *...Rich and varied arable land uses, root crops, bulbs, vegetables and horticultural glass houses give the landscape a highly productive character and seasonal variations in colour and texture; and*
- *Strong sense of remoteness in expansive and sparsely settled areas although periods of intense activity during harvest."*

3.46 With regards to landscape change and management, the aim in relation to energy provision is stated as: *"should be to protect the open character of the surrounding landscape by siting wind energy schemes away from visually prominent or sensitive locations. The impact on long distance views from the coast and areas inland should also be considered. There is potential for strategic regional and sub regional level guidance on commercial wind energy schemes, including cumulative impact, informed by the EMRLCA and other studies..."*

District Character Assessment

3.47 The Strategic Landscape Capacity Study for South Holland District Council was produced in 2003 by John Campion Associates Ltd. The study builds upon distinctions identified within The Fens National Landscape Character Area (as reported in the 1999 Character of England Study – a precursor to the current NCA's) and separates the district into three Landscape Character Types, of which the site lies within the **Peaty Fen Landscape Character Type** (LCT). The Peaty Fen LCT is described as

"flat topography dissected by long straight roads rivers, drainage channels and drainage ditches, often on raised banks (1-3m high). Predominantly linear settlement. Large scale, extensive views, and largely uninterrupted skyline. A sense of openness/expose [sic]. A strong linear pattern, defined by geometric arable fields of cereal and root crops, bounded by drainage channels or drainage ditches (not as intensive of [sic] Settled Fen)."

3.48 Key characteristics are described as flat landform, geometric/linear fields, linear settlement and isolated farmsteads with associated shelterbelts. The condition of the Peaty Fen LCT is described as "good".

3.49 The study analyses 'Visual assessment' and 'Perception' criteria for the Peaty Fen LCT as follows:

Visual assessment criteria:

<i>Pattern</i>	<i>strong</i>
<i>Scale</i>	<i>large</i>
<i>Texture</i>	<i>textured</i>
<i>Colour</i>	<i>muted</i>
<i>Complexity</i>	<i>simple</i>
<i>Remoteness</i>	<i>vacant</i>
<i>Unity</i>	<i>uninterrupted</i>
<i>Form</i>	<i>straight</i>
<i>Enclose</i>	<i>open</i>

Perception:

<i>Security</i>	<i>comfortable</i>
<i>Stimulus</i>	<i>bland</i>

Tranquillity *vacant*
Pleasure *pleasant*

HBA comment on published Landscape Character Assessments

- 3.50 The published landscape character assessments are generally considered to aptly describe the wider landscape setting of the site and provide useful guidance to strategic landscape objectives. Given the scale of the NCA and the size and nature of the proposals (including when considered cumulatively with the planning application for Tydd Solar Farm), it is not considered an appropriate basis for judging landscape effects alone, as any discernible changes to the key characteristics of the NCA or at an NCA-wide scale are unlikely. It is therefore 'scoped out' of the LVA.

Visual Baseline

- 3.51 The existing visual context and potential visibility of the Site and Proposed Development is described below. Whilst this primarily informs the assessment of visual effects of the Proposed Development it also in part feeds into some of the perceptual considerations relating to the assessment of landscape value.
- 3.52 A Zone of Theoretical Visibility (ZTV) has been generated to show the areas of land from within which the Proposed Development may be theoretically visible and therefore could potentially appear in existing views (*Figure HBA 5*). ZTV mapping is a tool to support LVA and professional judgements and therefore generally represents the 'worst case'. The ZTV uses Defra LiDAR (2m) Digital Surface Modelling which takes into account buildings and significant blocks of woodland (where modelled in the data). Further information on the datasets and process used for the ZTV mapping is provided in the LVA Methodology at *Appendix 1*.
- 3.53 Despite the use of 'screening' data, the potential visibility shown on the ZTV mapping remains theoretical as it does not allow for localised landscape features such as walls, fences, small structures, hedges or smaller trees groups (that are not modelled in the dataset), nor does it allow for the seasonal effects of vegetation. In reality, these would be likely to combine to provide a greater degree of screening of the Site and Proposed Development. The ZTV mapping also does not account for any new planting that would be delivered as part of the Proposed Development. As a result, the actual extent of visibility experienced on the ground would be likely to considerably more constrained than suggested by the ZTV, as demonstrated by the Representative Viewpoint Photographs (*Figures HBA 7 and HBA 8*).
- 3.54 Field work was undertaken in April 2024 and August 2024 to review the ZTV and consider the actual visibility of the Site on the ground and help identify the people who may experience changes in their views due to the Proposed Development (visual receptors) and the locations of representative viewpoints for those views. This has helped to refine the ZTV to indicate a 'Primary Visual Envelope' (PVE) (*Figure HBA 6*) identifying those parts of the surrounding area from where it is considered that views of the Proposed Development are most likely to be possible. Not all areas within the PVE will be exposed to views, similarly there may be other locations outside the PVE that may have views, but on the basis of the site inspections, these are not considered to be significant.
- 3.55 The PVE and existing visual context is described below.
- 3.56 The flat landform and generally open nature of the agricultural land of the Site and locality allow for typically open views across the working landscape, characterised by distant horizons and big skies. The flat topography in combination with the presence of woodland

and tree blocks to the west of the Site, tree belts and planted boundaries to most properties as well as occasional roadside hedges and tree lines, creates views that are for the most part foreshortened and frequently set against a near foreground, low horizon and treed backdrop. These features give rise to a perceptible strata in the views across the landscape between the rural fields and vegetation and the big skies.

- 3.57 Visual amenity is influenced by the working agricultural landscape, and the scattered dwellings, farmsteads, commercial and agricultural buildings, and small settlements within it. Electricity pylons are noticeable but not overly urbanising features. Agricultural and commercial buildings are also noted in views, including the large-scale sheds at Poplar Farm and the range of colourful shipping containers forming part of the storage facility off Broad Gate.
- 3.58 Close distance and direct views of the site are available from Inley Drove and Bardling's Drove where they pass through and adjacent to the Site. From both locations, sequential views are available travelling along the roads where the open agricultural fields of the Site are seen against a skyline of trees and vegetation with scattered built forms forming part of the backdrop including residential properties, agricultural units, shipping containers and light industrial uses.
- 3.59 Longer distance views are limited due to the overall flat landform and the lack of any elevated viewpoints meaning that intervening vegetation and built form readily screens distant views across the flat landscape. In this regard, both the PVE and ZTV represent a worst case in terms of the extent of potential visibility in the wider landscape which has been found to be limited on the ground.
- 3.60 To the north, the Site has a relatively open boundary and aspect allowing views across it from both Inley Drove (adjoining the northern boundary) and bridleway SuSJ/2/2 South Holland Main Drain (approximately 250m to the north of the Site's northern boundary at the closet point). Intermittent vegetation along South Holland Main Drain and further north along the roadside to North Road and within the field beyond, limit wider visibility although some glimpsed views to the Site are possible from the local road network.
- 3.61 East of the Site, visibility is curtailed by both intermittent hedgerow and garden planting and built form along Old Fen Dike, notably the large scale agricultural buildings at Poplar Farm and extensive shelter belt planting around this complex.
- 3.62 To the south, views are available across the Site through the more open sections of Broad Gate where there are gaps in vegetation and built form. Further south, the network of east-west droves that lie south of Broad Gate are open in character, save for where they pass residential and agricultural properties, allowing views towards the Site that are generally characterised by a wide-open foreground of farmland with the Site located beyond intervening buildings and vegetation including dispersed vegetation and properties on Broad Gate. In such views, the Site is discernible but not readily noted.
- 3.63 To the west of the Site there is an overall increase in the level of woodland and tree cover which allows for a good degree of containment to the Site with views possible looking between gaps in the woodland and tree cover from New Fen Dike Road but harder to discern beyond this due to the effect of distance and layering vegetation in a flat landscape.
- 3.64 There are no protected views or distinctive landmarks that the site contributes to.

Landscape Value

- 3.65 Landscape value is defined by GLVIA3 as:

"The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of different reasons".

- 3.66 Whilst the NPPF does not define 'valued landscapes', it is acknowledged and established by case law, that value is not merely something that is designated either by statute, such as an Area of Outstanding Natural Beauty, or non-statutory process.
- 3.67 The landscape of the Site is not considered to be a 'valued landscape' in and of itself in relation to the NPPF.
- 3.68 GLVIA3 notes at paragraph 5.19, where the valuing of the landscape is addressed that: *"A review of the existing landscape designations is usually the starting point in understanding landscape value, but the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape – such as trees, buildings or hedgerows – may also have a value. All need to be considered where relevant "*. It may also be appropriate to have regard to the other factors including those identified in Box 5.1, Page 84 of GLVIA3, listed as 'range of factors that can help in the identification of valued landscapes'.
- 3.69 Since GLVIA3 was published in 2013, appeal decisions, high court judgements and practitioners' experience have provided further information about the factors which can be considered in assessing landscape value outside nationally designated landscapes. The Box 5.1 criteria have therefore been updated and refined in TGN 02/21 'Assessing landscape value outside national designations' (Table 1) to cover the headings of:
- *Natural heritage*
 - *Cultural heritage*
 - *Landscape Condition*
 - *Associations*
 - *Distinctiveness*
 - *Recreational*
 - *Perceptual (scenic)*
 - *Perceptual (wildness and tranquillity)*
 - *Functional*

- 3.70 These are considered below in relation to the site in its local context, and drawing upon the landscape baseline already described:

Natural Heritage

- 3.71 Native hedgerows adjoining the Site are Habitats of Principal Importance and the Ecological Impact Assessment by MKA identifies both the native hedgerows and vegetated ditches are likely to have some value within the local landscape, with the ditches especially valuable due to their connectivity with the wider network of drains and eventually the South Holland Main Drain. In landscape terms, these habitats also contribute to the local sense of place, the ditches being characteristic of the landscape type.

Cultural Heritage

- 3.72 The presence of dykes and drove roads across the landscape (including through and adjoining the Site) offers a dimension of cultural time depth to the landscape but otherwise

there are no clear features of historic or archaeological interest on the Site that make a positive contribution to the landscape. There are no archaeological features or landmark structures on the Site. Listed buildings lie in the wider landscape but the Site does not make a particular contribution to their setting in landscape terms.

Landscape Condition

3.73 Landscape condition is defined by GLVIA3 as:

“A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements”.

3.74 The land is for the most part managed arable farmland. Historic field pattern is not fully intact but the network of ditches and drove roads provide remnant landscape. Overhead electricity cables are present but have little influence. Built forms are generally noticeable in the landscape and are of mixed architectural and visual quality but to a degree are embedded in the landscape character. Storage containers at Lift and Shift Self Storage noticeably jar.

Associations

3.75 The site has no known associations with notable people, events or the arts.

Distinctiveness

3.76 The Site forms part of a nationally rare but locally common Fen landscape type, expressed locally by the pattern of drainage ditches and droves that cross the landscape.

Recreational

3.77 The site has no recreational value in itself, but the wider area includes a bridleway along the route of South Holland Main Drain where the Site forms part of the landscape setting experienced by recreational users.

Perceptual (Scenic Quality)

3.78 The network of drainage ditches criss-crossing the landscape contribute to an appreciation of the area. The combination of flat landform, open fields and occasional vegetation creates attractive wide vistas in some locations, with a low level treed backdrop and dominated by big skies.

Perceptual (Wildness and Tranquillity)

3.79 As a working agricultural and settled landscape, the Site in its setting is not considered to be a wild or remote landscape or to have a strong sense of tranquillity, with built form and other human influence clearly visible in most views. There is a sense of relative tranquillity due to the predominantly agricultural land use, low noise levels and open nature of much of the land.

Functional

3.80 The network of ditches on the Site and throughout the local area contribute to the healthy functioning of the landscape in terms of drainage and habitat connectivity. The Site does not link to an adjacent National Landscape or contribute to a designated landscape.

HBA conclusion on landscape value

- 3.81 On the basis of the analysis above, the Site in its setting is considered to be of **Medium** value at a local scale (Refer to [Appendix 1 – Table 2](#)).

4 DEVELOPMENT PROPOSALS

- 4.1 The Proposed Development involves the construction and operation of a solar farm and battery energy storage system (BESS), vehicular access, internal access tracks, landscaping, boundary treatment, cabling and associated infrastructure.
- 4.2 Those aspects of the Proposed Development which are relevant to the assessment of landscape and visual effects are indicated on the Landscape Strategy plan (drawing number HBA-943-001 revision J, included at [Figure HBA 9](#)) and comprise:

- Solar Photovoltaic (PV) modules / panels and mounting structures located across 4 grassland field areas. The solar panels will tilt to ensure maximum irradiance from the sun as it moves. At maximum tilt (55 degrees) the maximum height of a panel will be 2.9m from ground. The solar panels tilt only at the extremities of the day – early morning and late night as the sun is rising or setting. The sunrise and set changes through the year with longer days in the summer (earlier sunrise and later sunset). It is considered that at summer equinox the maximum height will be during 4 to 5am and 7 to 8pm, and at winter equinox during 5 to 9am and 3 to 4pm. On this basis, the maximum height experienced from tilted panels will occur at the immediate hour following the sunrise and proceeding sunset only. The remaining times the panels will be lower than the maximum height. For the majority of the day, the panels will lay flat at around 1.5m from the ground. (Refer to PV Cross Section drawing number SD-13 Revision 04 by CADmundo).
- 5 No. solar inverter units would be located across the site.
- A compound area on the north eastern side of the Site and accessed from Bardling's Drove, containing a range of site infrastructure:
 - 3 No. BESS battery units, 7.81m (l) x 1.72m (w) x 3m (h);
 - A BESS interface cabinet: a metal cabinet 1.8m (l) x 0.8m (w) x 1.8m (h);
 - A DNO control room, formed of a 7.73m (l) x 3.7m (w) x 3.7m (h) shipping container style unit;
 - A project control room, formed of a 12.2m (l) x 2.44m (w) x 2.6m (h) shipping container style unit; and
 - An Aux transformer, 2.2m (l) x 1.8m (w) x 2.017m (h).
 - A power conversion unit.

All of the above equipment would be located on 300mm freeboard for drainage. The compound area would also include:

- A 240,000L water tank, 10m diameter and up to 2.2m high; and
- A SUDS attenuation basin.
- Each field area would be enclosed by a 2m high perimeter fence (wooden post with wire mesh deer-proof fence) with galvanised steel access gates. There would be a single point of access into each field area with a 4.5m wide crushed aggregate/MoT Type 3 surfaced access track to provide access to a solar inverter unit located within each field. The inverter units would be 3.7m (l) x 2m (w) x 2.9m (h).
- 3m high pole mounted CCTV units located around the site perimeter.
- Underground electrical cabling.
- New planting of native trees, hedges, shrubs and understorey to Site boundaries, together with retention of existing grassed verges and enhancement and creation of

meadow grassland areas.

- Construction compounds, storage and welfare facilities during the construction phase.

4.3 Details of the built elements are set out on the range of application drawings submitted with the planning application as recorded in the drawing tracker.

Iterative Design and Landscape Strategy

4.4 The proposed site layout was developed by Integrum as part of the iterative assessment and design process. From a landscape and visual perspective, the design of the Proposed Development has been guided by the LVA baseline findings including the published landscape character assessment guidance, fieldwork and in response to policy requirements.

4.5 The Landscape Strategy (drawing number HBA-943-001 revision J, included at [Figure HBA 9](#)) has been developed together with the site layout and is an integral part of the Proposed Development.

4.6 The following design measures have been embedded in the Proposed Development and Landscape Strategy to minimise adverse landscape and visual effects as far as practicable:

- Avoiding locating solar panels and development within the fields closest to bridleway SuSJ/2/3 along South Holland Drain and residential properties to the east and south of the Site to ensure that an open foreground with treed skyline and focus on 'big skies' remains and that the Proposed Development is not dominant in the main views from those locations.
- Integrating the Proposed Development within the existing field and landscape pattern as far as possible.
- Locating the compound on the north-eastern edge of the Site and northern side of Bardling's Drove where there is an established roadside hedge and field boundary that will provide a degree of immediate screening and additional planting can be achieved nearby to complement the existing landscape character and pattern. The access to the compound is located at an existing gap in the hedgerow.
- The use of deer fencing (wooden posts with wire mesh) as perimeter fencing to minimise visual prominence and integrate with the agricultural landscape character.
- Maintaining the key characteristics of the generally open landscape through careful placement of tree clusters and new planting to respond to existing landscape character and patterns and allow views to remain open with 'big skies' as a key feature. The more open east-west orientation boundaries are generally proposed to incorporate individual trees and scattered tree groups with some native shrubs and hedgerow to tie in with existing features or provide increased screening of the inverter units.
- Along Bardling's Drove, the perimeter fence is proposed to be set back from the edge of the highway by at least 20m with solar panels located a minimum of 5m beyond the fence, to retain a wide open corridor along the drove and minimise impact upon its mostly open character where it passes through the Site. Scattered tree planting is proposed on the road side of the perimeter fence to provide a degree of filtering of views of the solar development without containing the road corridor.
- Hedgerow planting and increased tree cover is proposed along the eastern and western Site boundaries (subject to drainage easements – see below) to tie to the existing landscape patterns; notably an increase in existing tree and woodland cover

to the west of the site, filter views from the east and provide Glint and Glare mitigation.

- All existing hedgerows and trees will be retained (apart from minor removal at a single access point for construction). Arrays will be set a minimum of 5m distance from the hedgerows to maintain an undeveloped buffer and to assist in hedgerow management.
- Ditches managed by the South Holland Internal Drainage Board are subject to a 9m easement that is respected within the proposal with new planting introduced beyond the easements where required.
- Within and around the solar arrays and infrastructure, the existing grassland landcover would be retained and overseeded with a native wildflower meadow mix, whilst areas of cultivated land would be sown with a meadow seed mix, to increase species diversity and deliver significant Biodiversity Net Gain (BNG). These would be managed as species-rich neutral meadow grassland.
- No operational lighting is proposed.

4.7 The landscape strategy forms the mechanism for delivering BNG on-site. Landscape and biodiversity enhancements would therefore be subject to a Habitat Management and Monitoring Plan (HMMP) that would identify appropriate implementation, management, and ongoing monitoring for a period of 30 years.

4.8 The Proposed Development would be operational for a period of 40 years after which time the solar panels, BESS and infrastructure would be decommissioned and removed from the Site, with the land returned to an undeveloped state. The landscape proposals and range of biodiversity enhancements delivered as part of the Landscape Strategy for the Proposed Development would have matured such that the land would be expected to be neutral meadow grassland rather than arable farmland.

5 LANDSCAPE & VISUAL EFFECTS

- 5.1 The methodology used for this LVA is set out in [Appendix 1](#).
- 5.2 Landscape and visual effects are related subject areas but are assessed separately. Landscape effects derive from changes in the natural and built environments which may give rise to changes in their fabric, character and quality and how these are experienced. Visual effects relate to the changes that arise in the composition of available views as a result of a development proposal.
- 5.3 Effects can be positive (beneficial), negative (adverse) and are sometimes neutral. This last ranking may most frequently occur where the change is very limited. It may also occur where a visual change may be very discernible but is considered no better or worse than what it replaced having regard to the context of the view.
- 5.4 Effects on landscape character, value, and visual amenity can arise from many causes, for example, perceived changes to:
- the scale, grain and pattern of the landscape, for example by alien or engineered landform or out of context planting or changes to land cover;
 - deterioration or erosion of the rural landscape by the urbanising effects of traffic, hard surfacing, structures and built development, lighting and signs and associated loss of tranquillity; and
 - views or loss of views between surrounding locations and the Proposed Development.
- 5.5 The LVA considers possible cumulative effects from the other submitted solar farm application that has been identified (refer to [Section 1](#)).

Assumptions and limitations

- 5.6 This report is based on assumptions made about the likely landscape and visual effects that would arise from the Proposed Development.
- 5.7 The assessment considers the temporary nature and extent of effects on the landscape and on views at the construction phase of the development, in winter upon completion of the development (Day 1) and the residual effects in summer after 15 years (Year 15), when the planting would have established and matured sufficiently to provide mitigation.
- 5.8 The lifetime of the Proposed Development is 40 years and therefore landscape and visual effects arising from the Proposed Development would be long-term in duration but ultimately temporary.
- 5.9 The fieldwork and representative viewpoint photography for the assessment was undertaken when vegetation was partly and fully in leaf. Professional judgements have been made with regard to the likely winter conditions and seasonal variation.
- 5.10 In order to assess the potential effects of the proposals, a maximum tilted height of the solar panels at 2.9m above the ground has been considered which reflects a more than worst case scenario as the tilt of the panels and therefore their heights would vary throughout the day and year. As noted in Section 4 of this LVA, the maximum height experienced from tilted panels will only occur at the immediate hour following sunrise and preceding sunset, the height of the panels being significantly lower during the times of the day when most visual receptors at public locations would be most likely to experience views.
- 5.11 For the purpose of this assessment and the accompanying visualisations, an approximate

0.3m growth per year has been assumed with a 3m overall height for new hedges. This is considered to reflect a 'worse case' for assessment purposes as in reality the actual growth rate and Year 15 height of plants would vary depending on the species, ground conditions and other environmental factors.

Assessment of Landscape Effects

5.12 The appraisal of landscape effects can be described as a consideration of the effect in terms of:

- **Sensitivity** of the receptor made up of judgements about:
 - the **value** attached to the receptor; and
 - the susceptibility of the receptor to the type of change arising from the specific proposals.
- **Magnitude of the effect** made up of judgements about:
 - the **size and scale** of the effect, for example is there a complete loss of a particular element of the landscape or a minor change;
 - **geographical extent** of the area that will be affected; and
 - the **duration of the effect** and, rarely, its reversibility.

Landscape sensitivity

5.13 Landscape value has been considered in the LVA baseline and was judged to be **medium**.

5.14 Landscape Susceptibility is defined in the GLVIA3 glossary as:

"The ability of a defined landscape or visual receptors to accommodate the specific Proposed Development without undue negative consequences."

5.15 The landscape of the site in its local context is judged to have overall **low** susceptibility to the Proposed Development on account of:

- The flat topography and simple landcover pattern of regular and medium-large fields, ditches and intermittent hedges and trees, including a pattern of localised tree cover (notably to the west) and conifer belt planting to properties. Whilst the fields of the Site are relatively open, they are also well embedded and contained within this pattern.
- The network of ditches and drives that add time depth and function to the local landscape, indicate higher susceptibility, however these are accommodated within the Proposed Development.
- A relative sense of tranquillity when stood on the Site but the presence of modern agricultural buildings and materials, overhead cables and container storage area and agricultural activities all exert visible and audible human influence on this working landscape.
- Limited intervisibility with the wider landscape due to a lack of elevated vantage points, although intervisibility to the bridleway to the south is more open.
- The perception of 'big skies' set against a low horizon with a generally treed skyline are characteristic where open vistas are available. The solar arrays are low level and sit below the skyline within the strata between the big skies and fields.

Landscape Sensitivity

- 5.16 The baseline section concluded that the site in its landscape context has a **medium** landscape value. This, together with its **low** susceptibility, indicates that the landscape sensitivity of the site is to be regarded as **Medium low**. (Appendix 1, Table 8)

Landscape Effects during construction

- 5.17 During the construction phase, there would be potential short-term landscape effects arising from undertaking construction activities on the Site and the presence of partially constructed site infrastructure. Construction effects would primarily be associated with the installation of the PV panels and associated built infrastructure including BESS, sub-stations and control buildings and fencing, construction of access tracks, clearance of 4m of hedgerow on Bardling's Drove, provision of temporary construction compounds and potential temporary lighting at the compound and the movement of construction vehicles and machinery accessing the Site. New planting and seeding would be implemented after completion of the construction works.
- 5.18 There would be a direct and large-scale effect on the Site resulting from the change from an agricultural landscape to a construction site. This effect would be short-term and temporary.
- 5.19 A short section of hedgerow on Bardling's Drove would be removed that may initially allow for greater perception of construction activity in the proposed compound area.
- 5.20 The landscape effects occurring during construction would be limited to the geographical extent of the Site and immediately adjoining areas and would for the most part be temporary and reversible.
- 5.21 The overall magnitude of change to the landscape of the Site in its immediate setting during construction, is judged to be Medium. Combined with the Medium Low sensitivity of the landscape, the overall importance of landscape effect on the Site during the construction phase is assessed as **Slight to Moderate adverse** and for the most part short-term and temporary in nature.
- 5.22 Beyond the Site, construction activities would temporarily alter the perception of the local landscape experienced from the roads immediately around the Site and the bridleway to the north of it, equating to a very small part of the wider Peaty Fen LCT. The overall magnitude of change to the immediate context of the Site within the Peaty Fens LCT would be Low, resulting in a **Slight Adverse** importance of landscape effect that would be short-term and temporary in nature.

Landscape Effects during operation

- 5.23 Landscape effects during the operational phase of the Proposed Development would result from the presence of the PV panels and associated built infrastructure including BESS, sub-stations and control buildings and fencing, new access tracks, access and hardstanding to a compound area off of Bardling's Drove and the presence of new planting. There would be occasional movement and activity associated with maintenance access and vehicles but would be infrequent and are considered to be de minimus.
- 5.24 Within the Site, arable landcover would be replaced with solar arrays and site infrastructure set in neutral grassland that would be established beneath the mounted PV panels and around the arrays and built features. Whilst the loss of arable land would be a direct adverse effect on the landscape resource in terms of this being a characteristic of the local farmed landscape character, the replacement with meadow grassland would be beneficial in terms of biodiversity value and would not be out of character.

- 5.25 The physical field pattern of the Site would be retained overall with PV arrays and infrastructure located within the field boundaries and ditch network. Fencing and tracks mostly follow existing field boundaries but could result in a perception of there being a minor local adjustment to field pattern where these features do not extend to the field boundaries. The Proposed Development would introduce a new internal pattern of rows of solar panels but this would not be inconsistent with the geometric lines that are characteristic in the local area and the Peaty Fen LCT, for example in the networks of manmade dykes and drove roads. The wider landscape patterns would not be altered.
- 5.26 The underlying topography and network of ditches on site would remain intact. New structures would be introduced that may mask the landform but the generally level topography of the Site would still be evident whilst the Proposed Development is operational. There would still be a perception of the flat landform on Site. All ditches will be offset by a minimum of 5m, with a 9m planting and development-free buffer proposed to the ditches managed by the South Holland Internal Drainage Board to ensure ongoing management and maintenance access.
- 5.27 The layout of the Proposed Development has been designed to retain existing vegetation and the network of ditches across the Site. The proposed compound is located within an area that is partly enclosed by existing hedgerows. Additional planting would be implemented including new hedgerows and tree planting. By Year 15 new planting would have established resulting in increased tree cover in the local landscape and helping to embed the Proposed Development into the surrounding landscape character whilst also respecting the more open characteristics of the Site itself and the drove roads through and adjoining it.
- 5.28 The character and immediate setting of Bardling's Drove and Inley Drove would be adversely altered to differing degrees.
- 5.29 Bardling's Drove would pass through the Proposed Development for a stretch of 800m where the current mostly open arable farmland setting would be replaced with new fencing, solar panels, CCTV, tracks and inverter structures to either side of the drove road. The new fencing would be set back from Bardling's Drove by at least 20m and the gap planted with scattered tree groups and sections of native hedge and shrubs at the eastern and western ends (where there is already planting and built development addressing the drove) as well as around a proposed inverter location in close proximity to the road. PV panels would be located 5m beyond the fencing. This would retain a wide open edge to Bardling's Drove. In time, the new planting would help to soften the edge of the Proposed Development with Bardling's Drove without enclosing the drove such that its character would be permanently altered in the long term ie. beyond decommissioning of the Proposed Development.
- 5.30 A 350m stretch of Inley Drove would address the northern edge of the Proposed Development (Field 1). The off site open fields to the north of the road corridor would remain, as would the well treed landholding to the west of the Site and fields and landholding to the east. The part of Inley Drove that passes the Site is currently open in character with scattered shrubs and trees along the roadside but there is a higher degree of vegetation to the east and west of the drove. The Proposed Development would be set back from Inley Drove by 20m and additional scattered native trees and shrubs established that would in time, tie in with adjoining offsite vegetation and retain an overall 'open' character to the roadside in the longer term and beyond decommissioning of the Proposed Development.
- 5.31 The Ecological Appraisal and BNG Plan prepared by MKA conclude that the new planting and habitat enhancements within the Proposed Development would lead to a net gain of 53.67 % in area biodiversity, a net gain of 195.03 % in hedgerow biodiversity and a net

gain of 16.75 % in watercourse biodiversity. This would result in an increased functional and natural heritage value to the landscape of the Site, with the new areas of neutral grassland, hedgerow and tree planting contributing positively to the character of the local area in the longer term.

- 5.32 The character of the Site in its local context would change from open arable farmland to a solar farm with increased elements of built form located across what is currently an undeveloped Site (albeit with noticeable built form and human influences around it). The solar panels would introduce a large scale of horizontal built form across the fields of the Site. The physical extent of the solar panels would be broken up by the existing patterns of ditches and field boundaries with set backs from roads and boundaries and new planting also introduced that would reduce the perceived scale. New built forms would be relatively low level and would be muted in colour to help minimise their perception in the landscape. In the context of other built forms in the landscape, the Proposed Development would introduce additional built forms some of which would be similar in style to agricultural buildings and storage in the area, although the solar panels themselves would provide a new vernacular.
- 5.33 The sense of relative tranquillity would largely remain as there would be very minimal human activity on the Site. The Site would remain a 'working' landscape albeit its use would have changed from arable to energy generation.
- 5.34 The Proposed Development would sit below the treed skyline to the wide open vistas that are available from South Holland Main Drain with the perception of an open foreground with a low tree lined horizon set against big skies retained. New planting on the Site would in time further contribute to the tree skyline without enclosing this part of the landscape. The Proposed Development would site low in the landscape but would inevitably alter the perception of an open landscape where there are close distance views available across the land.
- 5.35 In the wider landscape, the Proposed Development would alter the arable land use that dominates much of the area but is not considered to affect the perception of the Peaty Fen LCT or the nearby Settled Fens LCT. The Site has limited interaction with the wider landscape which would remain unaltered. The contained garden and agricultural setting to the listed building 'Sandy Gate Farmhouse' would not be impacted by the Proposed Development.
- 5.36 The geographic extent of the potential landscape effects during operation, is considered to be limited and localised to the Site and its immediate setting.
- 5.37 No statutorily protected landscapes, heritage or nature conservation features or 'valued landscape' under NPPF, would be adversely affected by the Proposed Development.
- 5.38 Taking the above into consideration and considered in the round, the overall magnitude of effect of the Proposed Development on the landscape of the Site in its immediate context is considered to be **Medium Adverse** at Day 1. When considered alongside the Medium Low landscape sensitivity of the landscape, this results in an importance of landscape effect ranked as **Slight to Moderate Adverse** at Day 1 and confined to the Site in its immediate context. The effects would be expected to reduce over time such that by Year 15 when planting and seeding has established, the importance of landscape effect is judged to be **Slight Adverse**.
- 5.39 The wider Peaty Fen LCT is judged to be subject to minimal change in terms of magnitude of landscape effect, resulting in No/minimal importance of landscape effects at Day 1 and Year 15.

- 5.40 The Proposed Development would be operational for 40 years and therefore landscape effects would be long-term but partially reversible as the solar panels and site infrastructure would be dismantled and removed from the Site beyond this time. New planting and biodiversity enhancements delivered as part of the Proposed Development are permanent beyond 40 years and would have been maintained for at least 30 years to achieve the stated net gain. The planting has been designed to avoid obstructing views and to retain the open character of the site in the longer term post de-commissioning of the Proposed Development. The access tracks would be removed at the end of the operational phase. In the longer term, once the Proposed Development is decommissioned, landscape effects could be expected to be slight beneficial when compared to the baseline if the consent does not require the removal of the landscaping alongside the physical structures.

Cumulative Landscape Effects

- 5.41 The landscape effects of one identified planning application (Tydd Solar Farm, South Holland District Council Planning Application Ref: H19-0329-24) are considered in combination with those of the Proposed Development.
- 5.42 It is considered that the potential for cumulative landscape and visual effect with the Proposed Development on the Site is very limited. This is on account of the distance between the Site and the Tydd Solar Farm application site, which lies just over 3.1km southwest of the Site. The sites are also separated by an expanse of agricultural land including built forms and vegetation belts and there is a lack of elevated landform that means that there are no views across both sites or wider intervisibility.
- 5.43 Both sites lie within the same Landscape Character Type (Peaty Fens LCT as defined in the South Holland Strategic Landscape Capacity Study and discussed in Section 3 of this LVA). There would therefore be a collective increase in solar development within the LCT should both applications be approved.
- 5.44 The proposed Meridian Solar Farm (NSIP) also appears to lie predominantly within the Peaty Fens LCT and would therefore also contribute to an increase in solar development. Information on the design of the NSIP is limited which limits the ability and consideration of cumulative landscape and visual effects, indeed the EIA Scoping Report for the Meridian Solar Farm sets out that flexibility will be needed through the EIA process. Using the EIA Scoping Report, it can be seen Landscape and Visual Impacts has been scoped in. The supporting ZTV suggests possible views of the possible pylons and substation, however, it notes there will be several elements to mitigate any impacts. In terms of consultation, the applicant has informed the NSIP of our proposals and status. We expect, given timescales and publicly available clear information relating to our Proposed Development at Fen Dyke, that the NSIP will duly consider our scheme and suitable mitigation imposed where necessary with regards to cumulative impacts.
- 5.45 Both the Tydd solar farm and the Proposed Development would result in the introduction of new solar panels, BESS and associated infrastructure, replacing arable farmland for the 40 year operational life of each solar development. The establishment of species-rich grassland, new tree and hedgerow planting on both schemes would make a positive contribution to landscape character and biodiversity beyond the operational life of the solar farms.
- 5.46 The cumulative impacts arising from Tydd solar farm (application H19-0329-24) are not considered to alter the Day 1 landscape effects that have been assessed for the Proposed Development at Fen Dyke.

- 5.47 The reduction in adverse landscape effect noted over time as described above for the Proposed Development would remain in the event that Tydd solar farm (application H19-0329-24) was also built out.

Assessment of Visual Effects

- 5.48 The approach to a visual appraisal involves a consideration of the effect in terms of;
- **Sensitivity** of the visual receptor (viewer) made up of judgements about:
 - the **susceptibility** to change of the viewer (receptor); and
 - the **value** attached to views.
 - **Magnitude** of visual effect. For example, if there is a complete loss of a particular element or only a minor change, together with a consideration of extent and permanence.
- 5.49 The visual sensitivity should then be considered against the magnitude of effect, to determine the ranking of visual effect that would arise. This has been undertaken for appropriate locations identified as part of the baseline work.

Visual Receptors

- 5.50 The following receptors have been identified for consideration in the assessment of visual effects. Associated Representative Viewpoints have also been selected to demonstrate the typical views available for the visual receptors, with Type 4 Visualisations (rendered photomontages) also provided for 5 of the 'key' viewpoints. These are listed below. The 5 viewpoints for the photomontages were selected to represent the typical public views available for the range of receptors (including the highest sensitivity receptors using public rights of way) as well as representing a range of close, middle and long distance views and geographic spread.
- 5.51 The locations of Representative Viewpoints are illustrated on **Figure HBA 6** with baseline photographs and Day 1 and Year 15 Type 4 visualisations (collectively referenced as 'photomontages') for Representative Viewpoints A-E at **Figure HBA 7** and Type 1 baseline annotated photographs for Representative Viewpoints A2, A3 and F-N at **Figure HBA 8**.

Users of the public rights of way network:

- ***Pedestrians, equestrians and cyclists using bridleway SuSJ/2/3 on the southern bank of South Holland Drain.*** Representative Viewpoint: **Figure HBA 7, Viewpoint A** (photomontages) and **Figure HBA 8, Viewpoint A2 and A3** (additional baseline views)
- ***Pedestrians, equestrians and cyclists using bridleway SuSJ/2/2 and Gedy/20/1 on the northern and southern banks of South Holland Drain to the east of Bell's Bridge.*** Representative Viewpoint: **Figure HBA 7, Viewpoint B** (photomontages).
- ***Pedestrians, equestrians and cyclists using bridleway Flee/7/1 and Flee/8/2 on the northern and southern banks of South Holland Drain to the west of Leedsgate Bridge.*** Representative Viewpoint: **Figure HBA 8, Viewpoint F** (baseline view)
- ***Pedestrians, equestrians and cyclists using bridleway SuSJ/1/1 on Bad Gate Drain parallel to Birds Drove.*** Representative Viewpoint: **Figure HBA 7, Viewpoint E** (photomontages).

Road users:

- **Motorists, cyclists, equestrians and pedestrians using Bardling's Drove.** Representative Viewpoint: [Figure HBA 7, Viewpoint C](#) (photomontages).
- **Motorists, cyclists, equestrians and pedestrians using Inley Drove** Representative Viewpoint: [Figure HBA 8, Viewpoint G](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using Old Fen Dike.** Representative Viewpoint: [Figure HBA 7, Viewpoint D](#) (photomontages).
- **Motorists, cyclists, equestrians and pedestrians using Broad Gate** Representative Viewpoint: [Figure HBA 8, Viewpoint H](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using New Fen Dike Road** Representative Viewpoint: [Figure HBA 8, Viewpoint I](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using Lutton Gate Road.** Representative Viewpoint: [Figure HBA 8, Viewpoint I](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using Dog Drove.** Representative Viewpoint: [Figure HBA 8, Viewpoint J](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using North Road** Representative Viewpoint: [Figure HBA 8, Viewpoint K](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using the east-west drove roads (Goochgate, Sandy Gate and Bad Gate) to the south of Broad Gate.** Representative Viewpoints: [Figure HBA 8, Viewpoint L](#) (baseline view) also refer to [Figure HBA 7, Viewpoint E](#) (photomontages) for Bad Gate.
- **Motorists, cyclists, equestrians and pedestrians using Langary Gate Road.** Representative Viewpoint: [Figure HBA 8, Viewpoint M](#) (baseline view)
- **Motorists, cyclists, equestrians and pedestrians using Broadgate Road (south of New Fen Dike).** Representative Viewpoint: [Figure HBA 8, Viewpoint N](#) (baseline view)

Residential receptors

- The closest residential receptors identified are residents of Bardling's Deer Farm, 77m west of the site. Residents of properties on Broad Gate, Old Fen Dike, Inley Drove, Goochgate and Sandy Gate are also considered to have potential to experience views.
- Private views for residential receptors are not explicitly considered by this assessment but are addressed briefly and generically. Private residential views should, if required, be the focus of a Residential Visual Amenity Assessment (RVAA), this being the process by which the potential visual impact of a development on the residential amenity of a private property can be objectively assessed.

Visual Susceptibility

- 5.52 The susceptibility to change depends upon receptor occupation or activity and the extent to which attention focuses on views and visual amenity. Typical criteria and thresholds are set out in [Appendix 1, Table 6](#).
- 5.53 In this instance, the most susceptible visual receptors include people engaged in outdoor informal recreation, on public rights of way whose interest is likely to be focused on the rural landscape and views. These receptors are considered to have [high](#) susceptibility and include not only pedestrians but also cyclists and equestrians as the rights of way in the local context are bridleways.

- 5.54 Vehicle travellers and pedestrians, cyclists and equestrians using the busier local roads of Old Fen Dike, New Fen Dike, North Road, Broad Gate and further afield, Langary Gate Road, are considered to have a **low** susceptibility to visual change. Users of these roads are likely to be travelling for a purpose other than to enjoy the view and those in vehicles will be moving through the landscape relatively quickly. Pedestrians, equestrians and cyclists are road users will have increased focus on the road corridor and vehicles.
- 5.55 Motorists, equestrians, cyclists and pedestrians using the east-west drove roads across the area, are considered to have **medium** susceptibility to visual change due to their appreciation of the surrounding landscape on relatively low trafficked roads albeit with numerous similar routes across the area.
- 5.56 Residents at home are considered to have a **high susceptibility** to visual change but, as is normal, are not specifically considered in this LVA.
- 5.57 For the purposes of this assessment, workers and visitors to the Site have been discounted.

Value of Views

- 5.58 Typical values for certain types of view locations are set out in **Appendix 1, Table 5**.
- 5.59 In this instance, no designated or protected views have been identified locally and views have been generally ranked as of **medium value**, but those from local bridleways have been ranked as **high value**.

Visual Sensitivity

- 5.60 Derived from the rankings of susceptibility and value, described above and indicated below, the following are the sensitivities adopted for this assessment (**Appendix 1, Table 8**):
- **Pedestrians on public rights of way**
(Susceptibility: H, Value: H) **High sensitivity.**
 - **Vehicle travellers, pedestrians, cyclists and equestrians on Old Fen Dike, New Fen Dike, North Road, Broad Gate and Langary Gate Road**
(Susceptibility: L, Value: M) **Medium Low sensitivity**
 - **Vehicle travellers, pedestrians, cyclists and equestrians on drove roads (Inley Drove, Bardling's Drove, Dog Drove, Goochgate, Sandy Gate and Bad Gate)**
(Susceptibility: M, Value: M) **Medium sensitivity**

Visual Effects during construction

- 5.61 During the construction stage, visual effects would arise from both the construction activity including vehicle and machinery movements and the part constructed built elements of the Proposed Development. Visual effects would generally alter throughout the construction programme depending upon the part of the Site where work is being undertaken at any one time.
- 5.62 The geographical extent of visual impact during construction is anticipated to be localised to views available in the immediate vicinity of the Site, and most noticeable from Bardling's Drove and Inley Drove where close distance views would be available of the construction. The duration of visual effects for those receptors during construction would be short-term and the effects would be temporary and ultimately reversible in nature. On this basis, the visual effects likely to be experienced during construction are considered to be no more than low adverse in magnitude. When combined with the medium sensitivity of receptors on Bardling's

Drove and Inley Drove, this would result in a **Slight adverse** importance of visual effect during construction.

- 5.63 For users of the other local roads around the Site (Old Fen Dike, New Fen Dike, North Road, and Broad Gate) there would be occasional and fleeting views of the construction works as they move through the landscape. Construction activity and built forms in progress would be glimpsed beyond and between roadside and other vegetation with occasional views across an intervening field. The magnitude of visual effect for those receptors is considered to be **minimal** adverse. When considered alongside the medium low visual sensitivity for users of the roads, the temporary visual effects during construction are assessed as **No/minimal effect** in terms of their importance.
- 5.64 Views of the construction works from other roads in the wider landscape are not expected to change beyond a minimal magnitude of effect where any taller machinery or vehicle movements might be glimpsed through gaps in vegetation or across a long foreground. Those receptors are therefore assessed as experiencing **no/minimal adverse** importance of visual effects during construction.
- 5.65 For users of the local public bridleways to the north of the Site (along South Holland Drain), construction activity would be noticeable when travelling along bridleway SuSJ/2/3 between Leeds Gate Bridge in the west and Bell's Bridge to the east. The extent of construction activity that would be visible would vary as the Site becomes more or less visible and views change sequentially along the route. The construction works would generally be visible through the central section of bridleway SuSJ/2/3 where part of the middle ground to the wide open vista would include construction activity, but the open foreground wider context of framed woodland and big skies would remain a key feature. The duration of the effect would be short-term and temporary in nature, therefore the magnitude of visual effect is judged to be **no/minimal adverse**, which when combined with the receptors' high sensitivity results in a worst-case **Minimal/Slight Adverse** importance of temporary visual effect during construction. To the east of Bell's Bridge and west of Leeds Gate Bridge, construction activity is considered likely to be less discernible and also result in a no/minimal magnitude of effect upon views (therefore **no/minimal adverse** importance of visual effects) from bridleways Flee/8/2, SuSJ/2/2 and Gedy/20/1.
- 5.66 Residents of properties around the perimeter of the Site may also experience private views of construction activity where they are not contained by garden vegetation. Due to the level of existing screening and filtering and the fragmented nature of most views, alongside the short duration and temporary nature of the visual effects, the magnitude of effect is considered to generally be **No/Minimal** but could be **Low adverse** for properties with fragmented static views from living spaces. Taking a worst case approach, the temporary visual effects during construction could be expected to be **Moderate adverse** in importance.

Visual Effects during operation (Day 1 and Year 15)

- 5.67 The assessment of the visual effects of the development is set out in the Visual Assessment Table at [Appendix 2](#) and outlined below.

Users of public rights of way

- 5.68 For users of bridleway SuSJ/2/3 along the southern bank of South Holland Main Drain, the Proposed Development would be located around 250m from the viewer at the closest point and would be noticeable at Day 1 in the middle ground of transient rural and open views across a wide and open foreground of farmland and with a characteristically low horizon

with treed skyline and big skies. Representative View A is taken from a mid point on the bridleway (Refer to [Figure HBA 7: Representative Viewpoint A](#) – photomontages), Representative Viewpoint A2 ([Figure HBA 8](#)) illustrates a baseline view from the northern part of bridleway SuSJ/2/3, whilst Representative Viewpoint A3 ([Figure HBA 8](#)) illustrates a baseline view from the southern part of the bridleway.

- 5.69 Solar panels would be visible in the central middleground to the wide open vista framed by the existing tree and woodland cover to the east and west of the Site. The Proposed Development would be located at the same elevation as the visual receptors such that the depth of the proposed development would not be perceived in the views, the Site would essentially appear as a line of solar development across part of the middleground. The solar panels and infrastructure would sit below the existing treed skyline and the big skies would remain a key component of the view. The open foreground to the view would remain. Buildings and shipping containers on Broad Gate and overhead cables through the Site already form built elements in the view. At Year 15, new planting within the Site and trees and hedgerow planting on the northern edges of Fields 1 and 2 would filter but not fully screen views of the solar panels and new site infrastructure and would knit with the adjoining planting at Inley Drove Farm to further break up the scale and extent of the solar arrays in the view. New tree planting within the Proposed Development would also contribute to the canopy cover of the skyline by Year 15.
- 5.70 In summer, views towards the Site from the eastern and western ends of bridleway SuSJ/2/3 are filtered by intervening crops and offsite vegetation to the east and west of the Site. Solar panels in the Proposed Development would be visible within the middleground of the view and to a lesser extent than the closest views to the Site from the central section of the bridleway. The Proposed Development would form a minor component of the views and would sit below the treed skyline and big skies which would remain key components of the views. In time, new tree planting to the northern Site boundary and trees and hedgerows along the eastern and western edges of the Site would help to break up the scale of the PV arrays but would not fully screen or contain the Site and views.
- 5.71 The magnitude of visual effect for users of bridleway SuSJ/2/3 is judged to be **Low to minimal** adverse at Day 1 and **Minimal** at Year 15. When combined with the receptors' high sensitivity, this results in a **Slight to Moderate Adverse** importance of visual effect at Day 1 reducing to **Slight Adverse** at Year 15.
- 5.72 East of Bell's Bridge, the public right of way continues both to the northern bank (Gedy/20/1) and southern bank (SuSJ/2/2) of South Holland Drain (refer: [Figure HBA 7, Representative Viewpoint B](#) photomontages). Pedestrians, equestrians and cyclists travelling south at the western end of the bridleway have long distance views towards the Site. The Proposed Development would be located beyond a foreground of arable fields and intervening trees and vegetation on Old Fen Dike which would screen and heavily filter views of the eastern edge of the Proposed Development. Solar panels would be glimpsed in the northern side of the Site (Field 1) in winter at Day 1 but would form a minor component of the view. At Year 15, new tree and hedgerow planting delivered as part of the Proposed Development would further filter views. For users of Gedy/20/1 on the northern banks of South Holland Drain, view would be further filtered by reed planting in the drain. The magnitude of visual effect for users of the southern end of bridleway SuSJ/2/2 and Gedy/20/1 is judged to be **minimal** adverse at Day 1 and **Minimal/No effect** at Year 15. When combined with the receptors' high sensitivity, this results in a **Slight Adverse** importance of visual effect at Day 1 reducing to **No/Minimal Adverse** at Year 15.

- 5.73 To the west of Leedsgate Bridge, (refer [Figure HBA 8, Representative Viewpoint F](#)) the Proposed Development would be less discernible in views looking towards the Site due to the level of intervening vegetation around Inley Drove Farm and Barling Deer Farm. Glimpses of solar panels at the western side of Field 3 may be possible through gaps in the vegetation at Day 1 but would not detract or change the overall composition of the views and would in time be screened by the new tree and hedge planting introduced as part of the Proposed Development. The magnitude of effect upon transient views from bridleways Flee/7/1 and Flee/8/2 is therefore judged as being Minimal adverse at Day 1 and No/minimal at Year 15. When combined with the high sensitivity of the visual receptor, the importance of visual effects is assessed as **no/minimal adverse** at both Day 1 and Year 15.
- 5.74 Further afield, users of the bridleway SuSJ/1/1 that runs along Bad Gate Drain, parallel to Birds Drove have very long distance views towards the Site across the generally open arable farmland of the Peaty Fens LCT to the south of Broad Gate (refer to [Figure HBA 7, Representative Viewpoint E](#)). Although the views towards the Site are relatively open in nature, the Proposed Development would not be discernible due to the distance between the viewing position and the closest part of the Proposed Development (1.3km) and the flat topography that means that any intervening vertical elements such as trees or hedges, filter views and the visibility of the low-level solar panels and site infrastructure is diminished. At Day 1 glimpses of solar panels at full tilt may be possible in winter but would form a very minor part of the background whilst the open foreground, treed skyline and big skies that form key components of this view would remain unaltered by the Proposal. Therefore, both the magnitude and importance of the visual effect is assessed as **No / Minimal Effect** at Day 1 and Year 15.

Users of local roads

- 5.75 For users of Bardling's Drove (Refer to [Figure HBA 7, Representative Viewpoint C](#)) and Inley Drove (Refer to [Figure HBA 8, Representative Viewpoint G](#)) there would be direct and close distance views of PV panels, fencing, tracks, and solar inverter units where the routes pass next to or through the Site.
- 5.76 For a stretch of approximately 800m of Bardling's Drove, the Proposed Development would border the receptor on both sides and replace much of the open farmland foreground with solar arrays and associated site infrastructure. The backdrop of treed skyline occasionally interrupted by agricultural buildings at Poplar Farm Flowers and overhead power lines would largely be masked by the solar panels when they are at full tilt with more of the treetops visible at other times. Existing 'working' structures such as large-scale agricultural sheds and shipping containers are already present in the views looking south and east from Bardling's Drove but would be screened by the solar development. The new fencing would be offset from the roads by some 20m with the PV panels located at least 5m beyond the fencing such that an open neutral grassland verge would be retained to the drove that would be in keeping with the open nature of the existing visual setting. New native trees would be scattered throughout the 20m gap to the road to help soften the visual impact of the Proposed Development without fully enclosing views in the longer term. Hedgerow and native shrub planting is also proposed at the eastern and western ends of the Site where it adjoins Bardling's Drove and to contain the proposed location of a solar inverter on the southern side of the drove. Over time, the PV panels and site infrastructure would remain noticeable but new planting would help to contain and break up the extent of PV panels visible from Bardling's Drove and filter views of both the PV panels, tracks and invertors whilst retaining the overall open character of the views. At the eastern end of Bardling's Drove, the new

compound area would be contained by the existing roadside hedgerow with views available looking through the access gate where hard surfacing would be visible but the BESS, control room and other built features would be offset from the line of sight. Big skies would remain a feature of the transient views from Bardling's Drove, although the treed skyline would be interrupted by the solar panels when at full tilt due to their relative proximity to the viewer.

- 5.77 The magnitude of visual effect for users of Bardling's Drove is considered to be High adverse at Day 1 reducing to Medium adverse by Year 15 as new planting establishes and the wide verge to the drove establishes and softens. When combined with the medium sensitivity of visual receptors on Bardling's Drove, this would result in a **Moderate/Substantial adverse** importance of visual effect at Day 1, becoming **Moderate adverse** at Year 15.
- 5.78 For users of Inley Drove, there would be close distance transient views of the Proposed Development where the road passes an approximate 350m length stretch of the northern site boundary (Field 1). The nature of the views in this location are generally open looking south across the Site towards the treeline and built development on Broad Gate and looking north across the open fields to South Holland Main Drain and beyond. New fencing would be set back from the southern side of Inley Drove by 20m with solar arrays and site infrastructure located 5m beyond this with a wide and open neutral grassland verge established on the southern side of Inley Drove that would be in keeping with the open nature of the existing visual setting. New native trees would be scattered throughout the 20m gap to the road to help soften the visual impact of the Proposed Development without fully enclosing views in the longer term. Hedgerow and native shrub planting is also proposed at the eastern and western ends of Field 1 where it adjoins Inley Drove and over time, would help to filter views of the solar array and contain the perceived spread of solar panels on the southern side of Inley Drove whilst retaining the overall open character of the views. New hedgerow planting on the east-west boundary to the northern side of Field 2 would in time curtail views of the wider area of solar panels across the Site. Solar panels and fencing would remain noticeable features in the views from this section of Inley Drove but would not dominate the whole of the view which would remain open to the north and with the characteristic big skies still a key feature. Further west on Inley Drove, views to the Site would remain screened by the existing roadside hedge and the well treed boundaries of Inley Drove Farm and adjoining woodland. To the east, roadside vegetation would provide some filtering of views but at Day 1, solar panels and fencing on the eastern side of the Proposed Development (Field 1) would be visible when travelling west. By Year 15, new hedgerow and tree planting along the eastern boundary would soften the edge of the Proposed Development and filter views.
- 5.79 For users of Inley Drove in the extents identified, the overall magnitude of change to their views is judged to be **Medium adverse** at Day 1, the effect reducing over time but remaining **Medium** or **Low adverse** by Year 15 as new planting establishes and the wide verge to the drove and wider hedgerow planting within the Proposed Development establishes and softens the impact of the solar arrays. When combined with the medium sensitivity of visual receptors on Inley Drove, this would result in a **Moderate adverse** importance of visual effect at Day 1, that would reduce over time but would be likely to remain in the **Moderate adverse** threshold in terms of importance of visual effect at Year 15.
- 5.80 For users of the other local roads around the Site (Old Fen Dike, New Fen Dike and Broad Gate) there would be occasional and fleeting transient views of the Proposed Development as people travel through the landscape and where there are gaps in the built form and vegetation.

- 5.81 For people travelling on Old Fen Dike (Refer to [Figure HBA 7, Representative Viewpoint D](#)) the Proposed Development would be seen in transient views looking west and south-west between gaps in the built form and boundary vegetation. Solar panels on the eastern side of the Proposed Development in Fields 1 and 2 would be at the same elevation as the viewer and set approximately 250m away beyond a broadly open foreground of intervening fields and generally framed by existing vegetation and set below the characteristic treed skyline to the view. Distant wind turbines and more localised overhead power cables currently break the skyline, The low level of the new structures would mean that the wooded skyline to the low horizon would be retained even with solar panels at full tilt. New native hedgerow and tree planting along parts of the eastern boundary to Fields 1 and 2 would in time provide partial screening of the solar panels and other structures whilst retaining the overall sense of openness to the view and the key components of the treed skyline and big skies. Visual receptors on Old Fen Dike are considered to experience a **low adverse** magnitude of effect to their transient views at Day 1 that would result in a **slight adverse** importance of visual effect. By Year 15, the magnitude of effect would reduce to **low – minimal adverse**, resulting in **minimal slight adverse** importance of visual effect to the transient view from Old Fen Dike at Year 15.
- 5.82 On New Fen Dike, views towards the Site are generally contained by roadside trees and hedges and woodland and tree cover around Inley Drove Farm and Barling Deer Farm. Solar arrays at the western edge of the Proposed Development in Field 2 would be visible in the middle distance (approximately 500m from the viewer) and centre of views looking north-east from a section of the road where there is a gap in the surrounding vegetation (refer to [Figure HBA 8, Representative Viewpoint I](#)). The new hedgerow planting on the western boundary of Field 2 and on the southern edge of the Proposed Development at Bardling's Drove would screen views of the solar arrays and site infrastructure by Year 15. Visual receptors on New Fen Dike have a medium low sensitivity and are considered to experience a **low adverse** magnitude of effect at Day 1 that would result in a **slight /minimal adverse** importance of effect. This would be expected to reduce to **No effect** by Year 15. Further south on New Fen Dike, the Proposed Development is not considered likely to be discernible in longer distance views.
- 5.83 New Fen Dike joins North Road to the north and the character of the road corridor becomes overall more formalised, with trimmed hedges and a tree avenue that screen many views out. Travelling south on the road, some views are available looking south-east towards the Site through gaps and gateways/estate fencing. (refer to [Figure HBA 8, Representative Viewpoint K](#)). These are partial and fleeting transitory views. The Proposed Development would be visible as part of the backdrop to oblique and transitory views, beyond a deep foreground of flat and open farmland and South Holland Drain and set below the treed skyline.
- 5.84 For people travelling on Broad Gate, views are transitory with some open verges and gaps between the properties and roadside/garden vegetation allowing views out towards the Site (refer to [Figure HBA 8, Representative Viewpoint H](#)). The new solar panels and fencing would be seen beyond roadside and other vegetation and separated from the viewer by intervening fields. New planting at the perimeter of the Proposed Development would in time further filter some, but not all, views without restricting views of the big skies or sense of openness to the landscape. Visual receptors on Broad Gate have a medium low sensitivity and are considered to experience a **low adverse** magnitude of effect at Day 1 that would result in a **slight / minimal adverse** importance of effect, remaining at Year 15.
- 5.85 Further afield users of Dog Drove to the north-east of the Site have oblique and transient

middle-distance views looking east and south-east towards the eastern side of the Site (Refer to: [Figure HBA 8, Representative Viewpoint J](#)) The Proposed Development would be visible at Day 1 between gaps in the intervening trees, properties and garden vegetation on Old Fen Dike. Existing built form is evident in the view and agricultural buildings at nearby Poplar Flowers form part of the immediate visual context. Solar panels would be seen in the eastern side of Field 2 and 3 in winter at Day 1 as part of the backdrop of the view. At Year 15, new tree and hedgerow planting delivered as part of the Proposed Development would filter views of the solar panels. The magnitude of visual effect for users of the southern end of Dog Drove is judged to be **low adverse** at Day 1 and **Minimal** at Year 15. When combined with the medium visual sensitivity of the receptor, this results in a **Slight Adverse** importance of visual effect at Day 1 reducing to **Minimal Adverse** at Year 15.

- 5.86 Approximately 1.3km to the north-west of the Site, people using Langary Gate Road have transient oblique views from a section of the road near Decoy House (refer to [Figure HBA 8, Representative Viewpoint M](#)) looking east and south-east across a long and flat foreground of arable land set against a treed skyline created by layers of vegetation on North Road and the woodland cover around Inley Drove Farm and Barling Deer Farm. The Proposed Development would be at the same elevation as the viewer, set within the existing vegetation framework and forming a part of the distant background to the view. At Day 1, glimpses of the solar panels may be possible when they are at full tilt but they would be likely to blend with the muted tones of winter vegetation. The overall composition and key visual characteristics of the available transient views would be unaltered by the Proposed Development, resulting in **no effect** on the views.
- 5.87 South of New Fen Dike, users of Lutton Gate Road (refer to [Figure HBA 8, Representative Viewpoint I](#) on New Fen Dike opposite Lutton Gate Road) Medium Low sensitivity and Broadgate Road (refer to [Figure HBA 8, Representative Viewpoint N](#)) have views towards the Site when travelling north. The Proposed Development is located between 500m and 1.2km distance and at the same elevation as the visual receptors, and would be predominantly embedded within the tree cover on the western side of the Site around Inley Drove Farm and Barling Deer Farm and to the south-west around Priory Cottage and the southern end of Broad Gate. At Day 1, glimpses of the solar panels at the western side of the Proposed Development (Field 2) may be possible from locations at the northern end of Lutton Gate Road looking through existing vegetation gaps. The southern edge of the Proposed Development may be partially glimpsed as part of the backdrop to longer distance views (over approximately 1.5km) from Broadgate Road. In both locations, views would be fleeting and the Proposed Development would sit at part of the background to the view below the treed skyline and an open foreground would remain. By Year 15, new hedgerow planting on the western boundary of Field 2 would screen views of the Proposed Development. Visual receptors on Lutton Gate Road have a medium low sensitivity and are considered to experience a **low adverse** magnitude of effect at Day 1 that would be of **slight / minimal adverse** importance of effect. This would be expected to reduce to **No effect** by Year 15. Users of Broadgate Road also have medium low sensitivity to visual change but due to the distance of the views and likely minimal scale of change in the view the Proposed Development is considered to result in a **minimal adverse** magnitude and importance of visual effect at both Day 1 and Year 15.
- 5.88 For motorists, cyclists, equestrians and pedestrians using the east-west drove roads (Goochgate, Sandy Gate and Birds Drove) that cross between Old Fen Dike and New Fen Dike to the south of Broad Gate, the Proposed Development would form a part of the distant background in the available long to very long distance, wide-scale, oblique and transient

views looking north. Refer to *Figure HBA 8, Representative Viewpoints K and L* (Goochgate and Sandy Gate), *Figure HBA 7, Representative Viewpoint E* for views from Bad Gate Drain (parallel too and therefore similar to views from Birds Drove).

- 5.89 From these locations, the solar panels would be glimpsed at Day 1 (when at full tilt) between the properties and vegetation on Broad Gate; the degree of visibility diminishing over distance due to the flat nature of the topography. The Proposed Development lies at a similar elevation to the viewing positions and the closest PV arrays in the southern fields of the Site (Fields 3 and 4) would be between approximately 500m to the closest point on Goochgate and 1.3km to the closest point on Birds Drove and would therefore be different to discern over the longer distances. The wide open foreground created by the arable landscape of the Peaty Fens to the south of Broad Gate would remain a key feature of the views, with the low horizon and predominantly treed skyline and big skies also remaining dominant components of the view. Intervening scattered properties and built forms on Broad Gate occasionally break the skyline in views from Goochgate (where it lies closest to Broad Gate and the Site) and similarly built forms on Goochgate break the skyline in views from parts of Sandy Gate, but built forms are otherwise set within vegetation on their boundaries and along parts of the roadside to Broad Gate. This vegetation would continue to provide visual filtering of views to the Site.
- 5.90 From these locations, the overall magnitude of effect is judged to be **low adverse** at Day 1 in winter, for views from Goochgate, reducing over distance to become minimal adverse along Sandy Gate and Birds Drove. Visual receptors in these locations have medium sensitivity and therefore the Day 1 overall importance of visual effect is assessed as **Slight adverse** for views from Goochgate and **No/Minimal adverse** for views from Sandy Gate and Birds Drove. No new planting is proposed to the southern site boundary and therefore any reduction of effects over time would arise from the establishment of the tree planting along Bardling's Drove. Taking a precautionary approach, fleeting glimpses of solar panels at full tilt may still be possible as part of the distant backdrop to the views at Year 15 and are therefore assessed as remaining **Slight Adverse** for users of Goochgate and **No/Minimal adverse** for views from Sandy Gate and Birds Drove in terms of their overall importance of effect at Year 15.
- 5.91 In summary, the Representative Viewpoints at Figure HBA 7 and HBA 8 demonstrate the range of typical views that would be available. The highest degree of visual effect would be experienced by those people travelling through and adjacent to the Site on Bardling's Drove and Inley Drove which due to the scale of change to the currently open views would result in a **Moderate/Substantial adverse** and **Moderate adverse** importance of visual effect at Day 1 respectively, both becoming **Moderate adverse** at Year 15. Elsewhere the visual effects arising from the Development would be no more than Slight to Moderate adverse importance of effect at Day 1 with the effects of the new planting generally reducing the visual effects of the scheme to Slight adverse or less by Year 15. In the majority of long and very long distance views, the visual effects of the Proposed Development would be generally only be experienced as glimpsed and oblique, transient views of solar arrays at full tilt in the distance. The characteristic treed skyline and big skies would remain a key component of local views whilst the open character as sought to be retained through the strategic use of offsets and planting.
- 5.92 It is important to remember that the solar panels would not be at full tilt for the majority of the day and therefore the effects considered in this LVA are a 'worst-case' consideration based upon the situation for one hour following sunrise and preceding sunset each day when many visual receptors would not experience such views.

- 5.93 The Proposed Development would remain operation for 40 years and therefore the visual effects recorded above would be long-term but reversible as the solar panels and other built elements of the Proposed Development would be dismantled and removed from the Site after this period of time. Planting delivered as part of the Proposed Development would have matured and would be retained beyond the operational period, if consented to do so, but has been designed so as not to obstruct open views beyond the operational period of the Proposed Development.

Residents (private views)

- 5.94 Potential visual effects upon private views from residential properties are considered on a general basis below.
- 5.95 To the east of the Site, properties on Old Fen Dike include a range of bungalows and two storeys houses. They are for the most part enclosed with garden vegetation but some open views were noted from the garden and upstairs floors of Rose Cottage and from the front gardens of the bungalows on the eastern side of Old Fen Dike. The proposed Development is likely to be a noticeable component of some private views from these residential properties.
- 5.96 South of the Site, residential properties on Broad Gate vary in terms of the degree of containment they have from garden vegetation. Several properties have overlooking views from upstairs windows across the Site and adjoining farmland and would therefore experience views of the solar panels and proposed site features. The Proposed Development would be located at least 200m from the nearest properties on Broad Gate and would be separated from them by an intervening undeveloped field that would provide separation and an open buffer.
- 5.97 Further afield, isolated dwellings on and in the vicinity of Goochgate, Sandy Gate and Birds Drove are generally enclosed by garden vegetation and any available views would be across a long distance and filtered by intervening vegetation.
- 5.98 To the west, the closest properties to the Site are enclosed by garden vegetation and are unlikely to have views of the Proposed Development.

Cumulative Visual Effects

- 5.99 In visual terms, no views have been identified where both the Site and the proposed Tydd Solar Farm site can be seen in combination or cumulatively as part of a sequential transient view when moving along a particular route.
- 5.100 There would therefore be no cumulative visual effects from the Proposed Development in combination with the submitted planning application for Tydd solar farm (application Ref: H19-0329-24) due to the distance between their respective locations and having no common visual receptor viewpoints.

6 SUMMARY AND CONCLUSIONS

- 6.1 This Landscape and Visual Appraisal (LVA) has described the landscape and visual baseline and considered the likely landscape and visual effects that would arise from the proposed construction and operation of a solar farm and Battery Energy Storage System (BESS), vehicular access, internal access tracks, landscaping, boundary treatment, cabling and associated infrastructure at Fen Dyke Farm near Spalding, that is now subject of a planning application.
- 6.2 The Site extends to an area of 44.2 hectares and comprises primarily flat working arable farmland located approximately 1.5km southwest of the village of Sutton St James and approximately 2.17km southeast of Holbeach St Johns. The Site forms part of a wider area of predominantly arable farmland between Old Fen Dike to the east and New Fen Dike to the west and is crossed by a series of droves that run east to west between the two. Inley Drove lies immediately north of the Site. Bardling's Drove runs east to west through the Site. Broad Gate lies approximately 180m south of the Site.
- 6.3 The Site is located within the flat landscape of the Fens that is characteristically supported by a drainage system of dykes and drains that support medium and large-scale uniform agricultural fields. The Site is typical of this landscape pattern and is almost entirely bordered by watercourses and subdivided into four separate generally regular shaped fields by virtue of the existing drainage system of dykes and ditches. The network of dykes and ditches as well as drove roads between the fields add a dimension of time depth and a sense of place to the local landscape.
- 6.4 Vegetation is generally quite sparse across the Site creating a sense of relative openness and allowing for long open vistas, however the local landscape includes extensive tree cover to the west, some hedgerow and shelter belt planting and with the curtilages to farmsteads and dwellings commonly contained by a range of poplar and coniferous shelter belts and hedgerows. Allied to the flat overall landform of the area, this limits wider visibility across the landscape.
- 6.5 This is a settled and working landscape that includes settlements and scattered dwellings as well as numerous farms including agricultural sheds, glasshouses and shipping containers which are all visible in the landscape. Overhead electricity cables are also present and distant wind turbines can be glimpsed in the backdrop to some views looking south.
- 6.6 There are no Public Rights of Way crossing or adjoining the Site, with the nearest routes following South Holland Main Drain approximately 250m north of the northern site boundary and separated from the Site by open land.
- 6.7 The landscape surrounding the Site is generally typical of the landscape character described in the East Midlands Regional Landscape Character Assessment - Regional Landscape Character Type Group 2: Fenland and Fenland Margins, and Sub-area 2b: Planned and Drained Fens and Carrlands, and the strategic Landscape Capacity Study for South Holland District Council – Peaty Fen Landscape Character Type.
- 6.8 In terms of visual amenity, the flat landform and generally open nature of the agricultural land of the Site and locality allow for typically open views across the working landscape, characterised by distant horizons and big skies. The flat topography in combination with the presence of woodland and tree blocks to the west of the Site, tree belts and planted boundaries to most properties as well as occasional roadside hedges and tree lines, creates views that are for the most part foreshortened and frequently set against a near and long foreground, low horizon and treed skyline.

- 6.9 The LVA considers that the Site in its setting is considered to be of **Medium** landscape value at a local scale (Refer to [Appendix 1 – Table 2](#)).
- 6.10 Close distance and direct transient views of the site are available from Inley Drove and Bardling's Drove where they pass through and adjacent to the Site where the open agricultural fields of the are seen against a skyline of trees and vegetation with scattered built forms forming part of the backdrop including residential properties, agricultural units, shipping containers and light industrial uses.
- 6.11 Longer distance views are limited due to the overall flat landform and the lack of any elevated viewpoints meaning that intervening vegetation and built form readily screens distant views across the flat landscape, with generally only glimpsed and fleeting views available.
- 6.12 The LVA baseline findings including published landscape character assessment guidance, fieldwork, and policy requirements, have guided the design of the site layout and the Proposed Development. A Landscape Strategy (drawing number HBA-943-001 revision J, included at [Figure HBA 9](#)) has been developed together with the site layout and is an integral part of the Proposed Development with embedded landscape mitigation measures to minimise adverse landscape and visual effects as far as practicable. The embedded mitigation includes the provision of offsets between fencing, solar panels and drove roads, location of the site compound within existing vegetation, retention of open fields between the Proposed Development and the bridleway to the north, properties on Old Fen Dike and Broad Gate as well as new planting of native trees and shrubs to both filter views and embed the Proposed Development into the landscape character without detracting from the generally open character in the longer term.
- 6.13 The landscape strategy also forms the mechanism for delivering BNG on-site. Landscape and biodiversity enhancements would therefore be subject to a Habitat Management and Monitoring Plan (HMMP) that would identify appropriate implementation, management, and ongoing monitoring for a period of 30 years.
- 6.14 The LVA finds that: -
- 6.15 The landscape and visual effects predicted to arise during the construction phase would be short in duration and temporary and would be typical of any construction works.
- 6.16 In terms of the landscape effects of the proposed development during operation, it is pertinent that no statutorily protected landscapes, heritage or nature conservation features or 'valued landscape' (under NPPF) would be adversely affected by the proposed development.
- 6.17 Within the Site, there would be a direct loss of arable landcover and replacement with solar arrays and site infrastructure set in neutral grassland that would be established beneath the mounted PV panels and around the arrays and built features and that by Year 15, would be beneficial in terms of biodiversity value and would not be out of character.
- 6.18 The physical field pattern of the Site would be retained overall with PV arrays and infrastructure located within the field boundaries and ditch network. The underlying topography on site would remain intact and there would still be a perception of the flat landform on Site. Existing boundary vegetation would be retained and the proposed compound located within an area that is partly enclosed by existing hedgerows. Additional planting would be implemented across the Site including new hedgerows and tree planting. By Year 15 new planting would have established resulting in increased tree cover in the local landscape and helping to embed the Proposed Development into the surrounding landscape

character whilst also respecting the more open characteristics of the Site itself and the drove roads through and adjoining it.

- 6.19 The character and immediate setting of Bardling's Drove and Inley Drove would be adversely altered to differing degrees. New fencing would be set back from the drove roads by at least 20m and the gap planted with scattered tree groups and sections of native hedge and shrubs at the eastern and western ends (where there is already planting and built development addressing the drove) with PV panels located a further 5m beyond the fencing. This would help to retain a wide open edge to the drove roads and soften the edge of the Proposed Development without enclosing the droves such that their character would be permanently altered in the long term ie. beyond decommissioning of the Proposed Development.
- 6.20 The Ecological Appraisal and BNG Plan prepared by MKA Ecology conclude that the new planting and habitat enhancements within the Proposed Development would lead to a net gain of 53.67 % in area biodiversity, a net gain of 195.03 % in hedgerow biodiversity and a net gain of 16.75 % in watercourse biodiversity. New areas of neutral grassland, hedgerow and tree planting delivered as part of the Proposed Development would contribute positively to the character, function and natural heritage of the local area in the longer term and its landscape value in this regard.
- 6.21 The Site would remain a 'working' landscape albeit its use and character would have changed and there would be increased elements of built form located across what is currently an undeveloped Site (albeit with noticeable built form and human influences around it). New built forms would be relatively low level and would be muted in colour to help minimise their perception in the landscape.
- 6.22 The Proposed Development would sit below the treed skyline to the wide open vistas that are available with the perception of an open foreground with a low tree lined horizon set against big skies retained. New planting on the Site would in time further contribute to the tree skyline without enclosing this part of the landscape.
- 6.23 In the wider landscape, the Proposed Development is not considered to affect the perception of the Peaty Fen LCT or the nearby Settled Fens LCT. The Site has limited interaction with the wider landscape which would remain unaltered. The contained garden and agricultural setting to the listed building 'Sandy Gate Farmhouse' would not be impacted by the Proposed Development.
- 6.24 The overall magnitude of effect of the Proposed Development on the landscape of the Site in its immediate context is considered to be Medium Adverse at Day 1. When considered alongside the Medium Low landscape sensitivity of the landscape, this results in an importance of landscape effect ranked as **Slight to Moderate Adverse** at Day 1 and confined to the Site in its immediate context. The effects would be expected to reduce over time such that by Year 15 when planting and seeding has established, the importance of landscape effect is judged to be **Slight Adverse**.
- 6.25 The wider Peaty Fen LCT is judged to be subject to minimal change in terms of magnitude of landscape effect, resulting in **No/minimal importance** of landscape effects at Day 1 and Year 15. No wider landscape character effects are identified.
- 6.26 Users of the public bridleways, notably bridleway SuSJ/8/2 along South Holland Main Drain to the north of the Site are considered to have high visual sensitivity and are assessed as having a **Slight to Moderate adverse** importance of effect at Day 1 with the effects of the new planting generally reducing the visual effects of the scheme to **Slight adverse** or less by Year 15

- 6.27 The highest degree of visual effect would be experienced by those people travelling through and adjacent to the Site on Bardling's Drove and Inley Drove which due to the scale of change to the currently open views would result in a **Moderate/Substantial adverse** and **Moderate adverse** importance of visual effect at Day 1 respectively, both becoming **Moderate adverse** at Year 15.
- 6.28 Elsewhere the visual effects arising from the Development would be no more than **Slight Adverse** (in importance of visual effect) at both Day 1 and Year 15. In the majority of long and very long distance views, the visual effects of the Proposed Development would be generally only be experienced as glimpsed and oblique, transient views of solar arrays at full tilt in the distance. Changes to the overall composition and the magnitude and importance of visual effect to the long distance views would mostly be **minimal**. The characteristic treed skyline and big skies would remain a key component of local views whilst the open character has been sought to be retained through avoiding solar panels in fields adjoining rights of way and the more open views of visual receptors on Old Fen Dike and Broad Gate as well as through the strategic use of offsets and planting.
- 6.29 It is important to remember that the solar panels would not be at full tilt for the majority of the day and would only be experienced at the assessed height for one hour following sunrise and for one hour preceding sunset each day. The Day 1 visual effects considered in this LVA are therefore based upon a precautionary 'worst-case' assessment, as is best practice. Many people (receptors) would not be using the Public Rights of Way and local road network at those times and would instead experience the solar panels at a reduced height which would generally be less noticeable or perceptible.
- 6.30 The Proposed Development would be operational for 40 years and therefore the landscape and visual effects would be long-term but partially reversible as the solar panels and site infrastructure would be dismantled and removed from the Site beyond this time. New planting and biodiversity enhancements delivered as part of the Proposed Development are permanent beyond 40 years and would have been maintained for at least 30 years to achieve the stated Biodiversity Net Gain. Planting has been designed to avoid obstructing open views to retain an open character to the Site beyond the decommissioning period. The access tracks would either be left in situ to allow improved access to the fields or would be removed if required at the end of the operational phase. In the longer term, once the Proposed Development is decommissioned, landscape and visual effects could be expected to be slight beneficial when compared to the baseline on account of the enhancement to landscape features and their function and biodiversity (if the consent does not require the removal of the landscaping alongside the physical structures).
- 6.31 Overall, and subject to the successful implementation of the Landscape Strategy ([Figure HBA 9](#)) and as described in this LVA, and with appropriate long-term management to secure plant establishment and the calculated Biodiversity Net Gain, it is considered that the identified effects could be mitigated to a degree that would help to embed the scheme into its local setting and character in accordance with published character guidance and policy.