HERBATA DATA CENTRE, NAAS

EIAR
VOLUME I MAIN TEXT – CHAPTER 11 LANDSCAPE AND VISUAL

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11 LANDSCAPE AND VISUAL

11.1 Introduction

The purpose of this Landscape and Visual Impact Assessment (LVIA) is to identify and determine the effects on landscape character, landscape features, visual receptors, and visual amenity as a result of the works associated with the construction and operation of the Project (comprising of both the Data Centre Application and Substation Application).

The chapter should be read in conjunction with the following appendices (EIAR Vol III):

- Appendix 11.1 Landscape Statement
- Appendix 11.2 Tree Survey and Arboricultural Impact Assessment Report
- Appendix 11.3 Photomontages
- Appendix 11.4 Glint and Glare Assessment

This assessment has been prepared and reviewed by Chartered Landscape Architects at RPS.

11.2 Methodology

11.2.1 General Approach

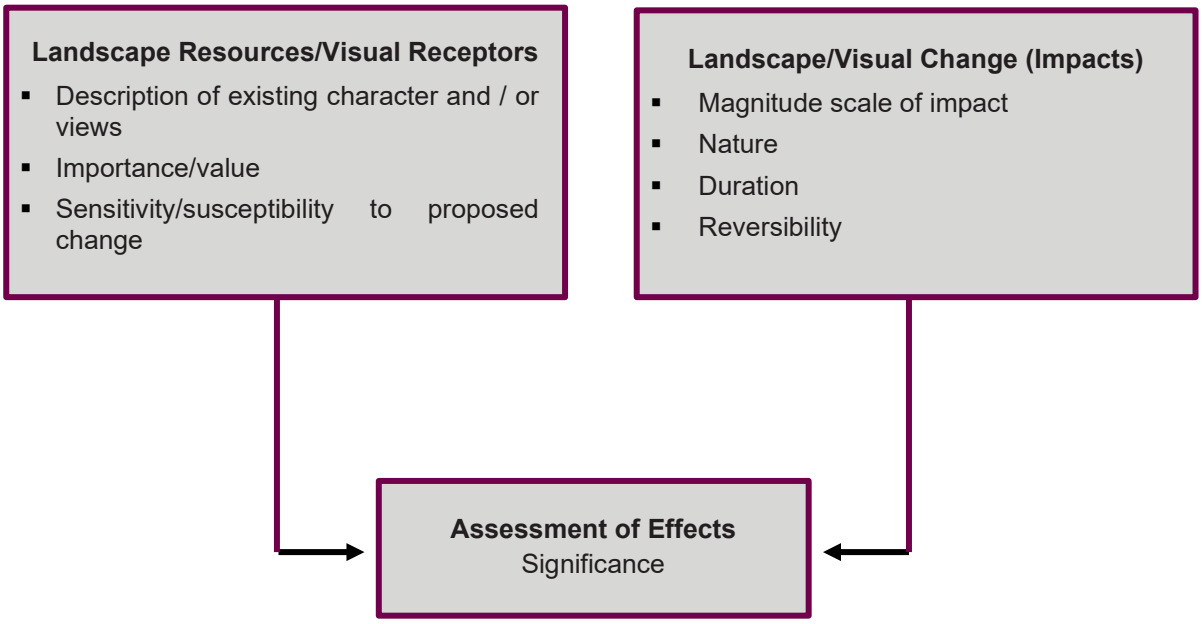
The methodology and approach to the assessment contained within this chapter has been carried out in accordance with best practice guidance described in the following documents;

- Guidelines for Landscape and Visual Impact Assessment, Third Edition (The Landscape Institute and Institute of Environmental Management & Assessment, 2013) (GLVIA3);
- Technical Guidance Note 06/19 Visual Representation of Development Proposals (The Landscape Institute, 2019).

GLVIA3 recommends that an LVIA '*concentrates on principles and process*' and '*does not provide a detailed or formulaic 'recipe"* to assess effects, it being the '*responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand*' (preface to the third edition).

The effects on the landscape resources and visual receptors (people) have been assessed by considering the proposed change in the baseline conditions (the impact of the development) against the type of landscape resource or visual receptor (including the importance and sensitivity of that resource or receptor). These factors are determined through a combination of quantitative (objective) and qualitative (subjective) assessment using professional judgement.

The assessment methodology is summarised as follows:



The LVIA considers the potential effects of a project upon:

- Individual landscape features and elements;
- Landscape character; and
- Visual amenity and the people who view the landscape.

11.2.2 Identification of Baseline Conditions

Baseline conditions have been identified and assessed through analysis of;

- Up to date digital copies of OSI maps;
- Aerial photography;
- Kildare County Development Plan 2023 – 2029; and,
- Drawings of the Project.

Site visits were undertaken to assess the existing environment, to establish the existing visual resource and to identify sensitive receptors, i.e. residential properties, scenic viewpoints. Site visits were also used to consider the potential effects on landscape character and visual impacts arising as a result of the Project.

11.2.3 Identifying Effects

Assessing the significance of an effect is a key component of the LVIA and is an evidence-based process combining professional judgment on the nature of a landscape or visual receptor's sensitivity, its susceptibility or ability to accommodate change and the value attached to the receptor. It is important to note that judgments in this LVIA are impartial and based on professional experience and opinion informed by best practice guidance.

The effects of a project are considered to be of variable duration and are assessed as being ~~of~~ either short-term, medium-term or long-term duration, and permanent or reversible. Effects are considered to be long-term during the operational phase of the development, whilst operations and infrastructure works apparent during the construction and initial operating period are considered to be temporary, short-term effects.

The reversibility of an effect is also variable. The effects on the landscape and visual resource that occurs during the construction period such as the use of construction machinery are considered to be reversible.

Where effects arise during the construction period, these are most likely to be as a result of: movement of construction machinery within the landscape; construction of new structures and construction activities within the site boundary all of which are considered to be short term in duration.

To avoid repetition, the duration and reversibility of effects are not reiterated throughout the assessment.

11.2.4 Assessment Criteria

The objective of the assessment process is to identify and evaluate the predicted significant effects arising from a project. Significance is a function of the:

- Sensitivity of the affected landscape or visual receptors, determined through consideration of the susceptibility of the receptor to the type of change arising from the specific proposals and the value attached to the receptor; and
- Secondly its scale or magnitude, derived from a consideration of the size/ scale, geographical extent, duration, and reversibility of the Project.

These definitions recognise that landscapes vary in their capacity to accommodate different forms of development according to the nature of the receiving landscape and the type of change being proposed.

As with any new development, it is acknowledged that, the introduction of a project into the existing landscape or visual context could cause either a deterioration, improvement or neutral impact on the existing landscape or visual resource.

11.2.5 Landscape Impact Assessment

The LVIA firstly assesses how a project would impact directly on any landscape features and resources. This category of effect relates to specific landscape elements and features (e.g. woods, trees, walls, hedgerows, watercourses) that are components of the landscape that may be physically affected by the Project, such as the removal or addition of trees and alteration to ground cover.

The LVIA then considers impacts on landscape character at two levels. Firstly, consideration is given to how the landscape/ landscape character is affected by the removal or alteration of existing features and the introduction of new features. This is considered to be a direct impact on landscape character.

Secondly, the indirect impacts of a project on the wider landscape are considered. The assessment of impacts on the wider landscape is discussed using the surrounding character areas identified in the relevant landscape/ landscape character assessments. It is acknowledged there is an overlap between perception of change to landscape character and visual amenity, but it should be remembered that landscape character in its own right is generally derived from the combination and pattern of landscape elements within the view.

The significance of effects on landscape features and character is determined by considering both the sensitivity of the feature or landscape character and the magnitude of impact.

Consideration of the sensitivity of the landscape resource against the magnitude of impact caused by the Project is fundamental to landscape and visual assessment and these two criteria are defined in more detail below.

11.2.6 Landscape Sensitivity

The determination of the sensitivity of the landscape receptor is based upon an evaluation of the elements or characteristics of the landscape likely to be affected. The evaluation reflects such factors as its quality, value, contribution to landscape character and the degree to which the particular element or characteristic can be replaced or substituted.

GLVIA 3 at paragraph 5.39 states that '*landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgments of their susceptibility to the type of change or development proposed and the value attached to the landscape.*

Susceptibility is defined by GLVIA 3 at paragraph 5.40 as *'the ability of the landscape receptor (whether it be the overall character or quality/ condition of a particular landscape type or area, or an individual element and/ or feature, or a particular aesthetic and perceptual aspect) to accommodate the Project without due*

consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies'.

The value of a landscape receptor is determined with reference to the presence of relevant landscape designations, such as Areas of Outstanding Natural Beauty (AONB) and their level of importance. For the purpose of this assessment, landscape value is categorised as:

- Very High: Areas of landscape acknowledged through designation such as Areas of Outstanding Natural Beauty (AONB) or other landscape based sensitive areas. These are of landscape significance within the wider region or nationally;
- High: Areas that have a very strong positive character with valued and consistent distinctive features that gives the landscape unity, richness and harmony. These are of landscape significance within the district;
- Medium: Areas that exhibit positive character, but which may have evidence of alteration/degradation or erosion of features resulting in a less distinctive landscape. These may be of some local landscape significance with some positive recognisable structure; and
- Low: Areas that are generally negative in character, degraded and in poor condition. No distinctive positive characteristics and with little or no structure. Scope for positive enhancement.

As previously discussed, landscape sensitivity is influenced by a number of factors including susceptibility to change, value and condition. In order to assist with bringing these factors together judgements regarding susceptibility and value have been used which define the landscape resource as being either, negligible, low, medium, high or very high. Table 11.1 defines the criteria that have guided the judgement as to the overall sensitivity of the landscape resource.

Assessments of susceptibility and value of a particular landscape resource may be different and professional judgement will always be used to conclude on the judgement of sensitivity. For example, value may be high and susceptibility may be low, and a professional judgement will be made to determine whether sensitivity is high, low or in between, supported by a narrative explanation.

Table 11.1: Landscape Sensitivity

Definition		Sensitivity
Landscape resource susceptibility	**Landscape resource value**	
Exceptional landscape quality, no or limited potential for substitution. Key elements / features well known to the wider public. Little or no tolerance to change	Nationally / internationally designated/ valued landscape, or key elements or features of national/ internationally designated landscapes. Little or no tolerance to change.	Very High
Strong/ distinctive landscape character; absence of landscape detractors. Low tolerance to change.	Regionally/ nationally designated/ valued countryside and landscape features. Low tolerance to change.	High
Some distinctive landscape characteristics; few landscape detractors. Medium tolerance to change.	Locally' regionally designated/ valued countryside and landscape features. Medium tolerance to change.	Medium
Absence of distinctive landscape characteristics; presence of landscape detractors. High tolerance to change	Undesignated countryside and landscape features. High tolerance to change	Low
Absence of positive landscape characteristics. Significant presence of landscape detractors. High tolerance to change	Undesignated countryside and landscape features. High tolerance to change	Negligible

11.2.7 Magnitude of Landscape Effect

The effect on Landscape receptors and the overall judgement of the magnitude of Landscape effect is based on combining judgements on '*size or scale, the geographic extent of the area influenced, and its duration and reversibility*' (GLVIA3, paragraph 5.48).

Direct resource changes on the Landscape character in the study area are brought about by the introduction of the Project and its impact on the key landscape characteristics. Judgements regarding the magnitude of Landscape/ landscape impact are indicated in Table 11.2 below.

Table 11.2: Magnitude of Landscape Impact

Definition	Magnitude of Impact
Total loss or addition or/ very substantial loss or addition of key elements / features / patterns of the baseline, i.e., pre-development Landscape and/ or introduction of dominant, uncharacteristic elements with the attributes of the receiving Landscape	Large
Partial loss or addition of or moderate alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development Landscape and / or introduction of elements that may be prominent but may not necessarily be substantially uncharacteristic with the attributes of the receiving Landscape.	Medium
Minor loss or addition of or alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development Landscape and or introduction of elements that may not be uncharacteristic with the surrounding Landscape.	Small
Very minor loss or addition of or alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development Landscape and/or introduction of elements that are not uncharacteristic with the surrounding Landscape approximating to a 'no-change' situation.	Negligible
No loss, alteration or addition to the receiving Landscape resource	No change

11.2.8 Visual Impact Assessment

As outlined in GLVIA 3 (Paragraph 6.1) '*an assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity'.* The assessment of effects on views is an assessment of how the introduction of a project will affect views within the study area. The assessment of visual effects therefore needs to consider:

- Direct impacts of a project upon views of the landscape through intrusion or obstruction;
- The reaction of viewers who may be affected, e. g. residents, walkers, road users; and
- The overall impact on visual amenity.

11.2.9 Sensitivity of Visual Receptors

For visual receptors, judgements of susceptibility and value are closely interlinked. For example, the most valued views are likely to be those which people go and visit because of the available view. The value attributed to visual receptors also relates to the value of the view – for example a National Trail is nationally valued for its access, not necessarily for its views.

Paragraph 6.32 of the GLVIA refers to the susceptibility of different visual receptors to changes in views and states that susceptibility is mainly a function of "*the occupation or activity of different people experiencing the view at particular locations*" and "*the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations*."

Other factors affecting visual sensitivity include:

- The location and context of the viewpoint;
- The expectations and occupation or activity of the receptor; and
- The importance of the view.

Judgements on the overall visual sensitivity/susceptibility are provided in Table 11.3 below and overall sensitivity of the visual resource is based on combining judgements on the sensitivity of the human receptor (for example resident, commuter, tourist, walker, recreationist or worker, and the numbers of viewers affected) and judgements on the visual resource value (for example views experienced from residential properties, workplace, leisure venue, local beauty spot, scenic viewpoint, commuter route, tourist route or walkers' route).

Table 11.3: Visual Resource Sensitivity

Definition		Sensitivity
Visual resource Susceptibility	**Visual resource value**	
Views of remarkable scenic quality, of and within internationally designated Landscapes or key features or elements of nationally designated landscapes that are well known to the wider public. Little or no tolerance to change.	Observers, drawn to a particular view, including those who have travelled to experience the views. Little or no tolerance to change	Very High
Views from residential property. Public rights of way, National Trails, Long distance walking routes and nationally designated countryside/ landscape features with public access. Low tolerance to change.	Observers enjoying the countryside from their homes or pursuing quiet outdoor recreation are more sensitive to visual change. Little tolerance to change	High
Views from local roads and routes crossing designated countryside / landscape features and 'access land' as well as promoted paths. Medium Tolerance to change.	Observers enjoying the countryside from vehicles on quiet/ promoted routes are moderately sensitive to visual change. Medium tolerance to change	Medium
Views from workplaces, main roads and undesignated countryside / landscape features. High tolerance to change.	Observers in vehicles or people involved in frequent or infrequent repeated activities are less sensitive to visual change. High tolerance to change	Low
Views from within and of undesignated landscapes with significant presence of landscape detractors. High tolerance to change.	Observers in vehicles or people involved in frequent or frequently repeated activities are less sensitive to visual change. High tolerance to change	Negligible

11.2.10 Photomontages/Visualisations

Images representing views available from the public realm at each of the selected viewpoints have been captured using a digital SLR camera with a full frame sensor in combination with a 50mm fixed focal length lens, mounted on a tripod for horizontal alignment.

Generally, the horizontal angle of view represented within photomontages accompanying this LVIA is 56.5 degrees and has been taken with a 50mm fixed focus lens. For each of the viewpoints represented a record is taken of the light, visibility conditions, camera height above ground, time of day, viewpoint coordinates and the bearing of each view towards the Project site.

A highly accurate 3D computer model of the Project is created directly from architectural drawings. All materials and finishes are modelled as realistically as possible. Rendering is the process by which the computer generates realistic images from the 3D model. All of the information recorded at the time the site photos were taken, that is, camera co-ordinates, angle of view, and direction of view, is used to generate matching renders for each view. Careful consideration is given to the direction of sunlight, time of day, weather conditions and distance of viewer, so that photomontages will match reality in terms of lighting, sharpness, density of colour etc.

At this stage the rendered image of the Project is superimposed onto its matching photograph. The mathematical accuracy is then double checked and verified by ensuring that existing prominent features which are also modelled line up exactly in the photo. Next, the photomontage specialist establishes, which existing features, such as buildings and trees are in the foreground of the Project and those that are in the background,

i.e. which features will mask the development and which ones will appear behind the development. When it is found that the development is not visible due to foreground features, its outline is indicated with a red line.

The resulting photomontage, having gone through this extensive procedure, is an accurate and verifiable representation of the Project as viewed from the viewpoint positions (see EIAR Vol. III Appendix 11.3 Photomontages).

11.2.11 Magnitude of Visual Effects

The magnitude of impact on the visual resource results from the scale of change in the view, with respect to the loss or addition of features in the view, and changes in the view composition. Important factors to be considered include: proportion of the view occupied by the Project, distance and duration of the view. Other vertical features in the landscape and the backdrop to the Project will all influence resource change. Judgements regarding the magnitude of visual impact are provided in Table 11.4 below.

Table 11.4: Magnitude of Visual Impact

Definition	Magnitude
Complete or very substantial change in view dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g., through removal of key elements	Large
Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline, i.e., pre-development view through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. Composition of the view would alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant	Medium
Minor change in baseline, i.e. pre-development view - change would be distinguishable from the surroundings whilst composition and character would be similar to the pre change circumstances.	Small
Very slight change in baseline, i.e. pre-development view - change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.	Negligible
No alteration to the existing view	No change

11.2.12 Significance of Effects

The purpose of this LVIA is to determine, in a transparent way, the likely significant landscape and visual effects of the Project. It is accepted that, due to the nature and scale of development, the Project could potentially give rise to some notable landscape and visual effects.

GLVIA3 identifies that '…… *a final judgment is made about whether or not each effect is likely to be significant. There are no hard and fast rules about what effects should be deemed 'significant' but LVIAs should always distinguish clearly between what are considered to be significant and non-significant effects*'.

Significance can only be defined in relation to each particular development and its specific location. The relationship between receptors and effects is not typically a linear one. It is for each LVIA to determine how judgements about receptors and effects should be combined to derive significance and to explain how this conclusion has been arrived at.

The identification of significant effects would not necessarily mean that the effect is unacceptable in planning terms. What is important is that the likely effects on the landscape and visibility are transparently assessed and understood in order that the determining authority can bring a balanced, well-informed judgement to bear when making the planning decision.

The significance of effects on landscape, views and visual amenity have been judged according to a six-point scale: Substantial, Major, Moderate, Minor, Negligible or None as presented in Table 11.5 below, which contains a description of the significance of effect criteria.

Table 11.5: Significance of Effect Criteria

Significance of Effect	Landscape Resource	Visual Resource
None	Where the project would not alter the Landscape character of the area.	Where the project would retain existing views.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/visual amenity.
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Moderate	Where proposed changes would be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views would be noticeably out of scale or at odds with the existing view.
Major	Where proposed changes would be uncharacteristic and/or would significantly alter a valued aspect of (or a high quality) Landscape.	Where proposed changes would be uncharacteristic and/or would significantly alter a valued view or a view of high scenic quality.
Substantial	Where proposed changes would be uncharacteristic and/or would significantly alter a Landscape of exceptional Landscape quality (e.g., internationally designated Landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes would be uncharacteristic and/or would significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.

For the purposes of this assessment those effects indicated, in Table 11.6 below, as being Substantial or Major to Substantial are regarded as being significant. Effects of 'Minor to Moderate' and lesser significance have been identified within the assessment, though are not considered significant. For those effects indicated as being of 'Moderate' or 'Moderate to Major' the assessor has exercise professional judgement in determining if the effect is considered to be significant, taking account of site specific or location specific variables which are given different weighting in each instance according to location.

Table 11.6: Significance of effects matrix

Magnitude of Impact	Sensitivity				
	Negligible	Low	Medium	High	Very High
No Change	No Change	No Change	No Change	No Change	No Change
Negligible	Negligible	Negligible to Minor	Negligible to Minor	Minor	Minor
Small	Negligible to Minor	Negligible to Minor	Minor	Minor to Moderate	Moderate to Major
Medium	Negligible to Minor	Minor	Moderate	Moderate to Major	Major to Substantial
Large	Minor	Minor to Moderate	Moderate to Major	Major to Substantial	Substantial

A conclusion that an effect is 'significant' should not be taken to imply that the Project is unacceptable. Significance of effect needs to be considered with regard to the scale over which it is experienced and whether it is beneficial or adverse.

11.2.13 Cumulative Effects

The methodology for assessment of cumulative impacts has been derived from Guidelines for Landscape and Visual Impact Assessment, Third Edition (The Landscape Institute and Institute of Environmental Management & Assessment, 2013) (GLVIA3).

The purpose of the Cumulative Landscape and Visual Impact Assessment (CLVIA) is to consider the landscape and visual impacts of the Project when viewed in context with other similar development.

Cumulative effects consist of direct effects on the physical character of the site containing the development, and indirect, perceived effects on the character of areas from which the developments would be visible. GLVIA3 identifies effects as follows:

- Cumulative effects as *'the additional changes caused by a project in conjunction with other similar developments or as the combined effect of a set of developments, taken together'* (SNH, 2012:4);
- Cumulative landscape effects as effects that *'can impact on either the physical fabric or character of the landscape, or any special value attached to it'* (SNH, 2012:10);
- Cumulative visual effects as effects that can be caused by combined visibility, which *'occurs when the observer is able to see two or more developments from one viewpoint'* and/or sequential effects which *'occur when the observer has to move to another viewpoint to see different developments'* (SNH, 2012:11).

The significance of any identified cumulative landscape and visual effect has been assessed as per the main LVIA methodology. These categories have been based on the same combination of receptor sensitivity and predicted magnitude of impact in order to identify the residual significance of effects.

11.3 Receiving Environment

11.3.1 General Overview

The Project subject lands are in excess of 37ha (38.64 ha) and are located on the western side of the M7 motorway, positioned between Junctions 9a and 10. The site is bound to the north by the R409 road which provides a direct link to the centre of Naas, c.2.5km to the east.

The lands are located between the existing 'M7 Business Park' and 'Osberstown Business Park'. The Osberstown Wastewater Treatment Plant is located nearby to the north. The site is bounded to the east by the M7 motorway and to the west by agricultural lands. The 'Newhall Retail Park' is located to the south of the site, on the east side of the M7 motorway.

The surrounding site character is defined by significant development in the locality in recent years, particularly light industry, logistics and services. The Osberstown Wastewater Treatment Plant is located c. 600m to the north.

The site is currently in agricultural use and comprises a number of fields which are bounded by hedgerows. There is a cluster of farm buildings located within the site, accessed from the R409. There are a number of agricultural entrances to the lands from the R409. The site is flat but falls at an even grade slightly from north to south. The site is bounded by semi-mature hedgerows and tree lines on the north, west and east, and a combined hedgerow and creek to the south.

Two overhead power lines currently cross the site (110kV and 220kV). The 110kV line crosses the north-western corner of the site and the 220kV crosses the eastern part of the site.

1 no. dwelling is located within the site, fronting the R409. As part of the Project the agricultural buildings and the dwelling will be demolished.

11.3.2 Kildare Landscape Character Assessment

Kildare County Council have completed a Kildare Landscape Character Assessment (KLCA) that forms part of the Kildare County Development Plan 2023-2029. The objective of the study was to complete a thorough assessment of the character of Kildare's landscapes in order to provide the basis for policy formulation and informed decision-making regarding landscape management in the County.

The assessment provides an overview of the Kildare County landscape and subdivides the countryside into 16 Landscape Character Areas (LCAs) based upon information on people and place and the combinations of nature, culture and perception which make up each part of the County.

A review of the KLCA indicates that the Project lies within the Northern Lowlands – Naas & Environs LCA.

11.3.2.1 Northern Lowlands – Naas & Environs

This extensive lowland area to the north-east of the County is bisected by the River Liffey valley. The Royal Canal runs along its northern boundary and the Grand Canal corridor follows a northeast to southwest alignment. This area is characterised by generally flat terrain and open lands with regular (medium sized) field patterns. Hedgerows are generally well maintained and low, with scattered trees along the field boundaries that partially screen the lowest lying areas. Nevertheless, the generally low-lying vegetation of the area allows long-distance and extensive visibility. Distant views include the skylines of the Eastern Uplands, the Newtown Hills to the west, and the Chair of Kildare hilltops to the south-west. Soils in the area are dominated by complexes (generally mineral soils) with pockets of Grey Brown Podzolics and Gleys. The area is suitable to moderately suitable for tillage, pasture, and meadow and suitable for forestry.

Critical Landscape Factors

Smooth Terrain - Smooth terrain and the generally flat topography and landform that characterise this landscape character unit, allow vistas over long distances without disruption. As a result, development can have a disproportionate visual impact, due to an inherent inability to be visually absorbed.

Undulating topography - Gently undulating topography is presented at certain areas of this character unit, providing the potential for local visual enclosure thereby absorbing development where it does not break the skyline (i.e. it renders visually unobtrusive of the overall landscape scale). St. Patrick's Hill, Ardrass, Celbridge represents an important topographical feature within the Northern Lowlands area.

Low Vegetation - The grassland, tillage fields and generally low hedgerows of this area provide similar characteristics to smooth terrain in landscape terms, and the two are often interrelated due to soil attributes. Grassland vegetation and agricultural crops are usually uniform in appearance, failing to break up vistas, and allowing long distance visibility. Existing low hedgerows partially screen the lowest land parcels, nevertheless the common low vegetation proves unable to visually absorb new development.

Shelter Vegetation - Shelter vegetation is represented at some stretches of this unit by coniferous plantations, deciduous woodlands and the presence of trees that grow on field hedgerows. In a similar manner to undulating topography, shelter vegetation has a shielding and absorbing quality in landscape terms. It can provide a natural visual barrier and also adds to the complexity of a vista, breaking it up to provide scale and containment for built forms.

Localised River and Canal Views - River valleys and canal corridors are generally visually enclosed and highly localised areas of very distinctive character with a high degree of visual consistency.

This character unit includes sections of the River Liffey and the Grand and Royal Canals. Due to the low-lying nature of this area, many views of the river valley and the canal corridors are available from the local roads and from the viewing points located on bridges.

Overall, taking into account the susceptibility and value attached to the LCA, the sensitivity of this LCA is judged to be low. The LCA is considered to have the scope and capacity for positive enhancement.

11.3.3 Areas of Sensitivity

In addition to completing an LCA, The Kildare County Development Plan has also designated Landscape Sensitivity Areas for each LCA. This is in order to determine the likely perceived impact of a particular development on the landscape.

As mentioned above, the Project site is located in the Northern Lowlands which has been classed as an area of Low Sensitivity. In addition to this, the Kildare County Development Plan has provided guidance on the likely

compatibility between a range of land-use classes and the principal landscape areas of the county classified by sensitivity. As the Project is for a Data Centre which is classed as an 'Industrial Project', the development is seen to have a high compatibility with the Northern Lowlands LCA.

Therefore, taking into account the susceptibility and value attached to the LCA, the sensitivity of this LCA is judged to be low. The LCA is considered to have the scope and capacity for positive enhancement.

11.4 Landscape Designations

This section reviews Landscape designations in Kildare. The relevant Plan is Kildare County Development Plan 2023-2029.

11.4.1 Kildare County Development Plan 2023 - 2029

A review has taken place of the Kildare County Development Plan and all zonings and designations that are relevant to this LVIA have been outlined below.

11.4.2 Areas of High Amenity

The County Development Plan has identified several areas that are defined as areas of high amenity as they are seen as special landscape areas. These are:

- Dun Ailinne - Dún Ailinne is located on top of Knockaulin Hill, a short distance from the town of Kilcullen. Excavations and other investigations of Dun Ailinne (the Beautiful Fort) have established that it was the scene of major and regular gatherings going right back to Neolithic times.
- The Curragh and Enviorns - The Curragh, located between Newbridge and Kildare Town, is the largest area of unenclosed natural grassland in the country. It is home to a significant number of archaeological sites and provides a hugely valuable amenity area for the surrounding towns of Kildare, Newbridge, and Kilcullen.
- The River Liffey and the River Barrow Valleys - These are of significance in terms of landscape and amenity value and as such are sensitive to development. They are characterised by smooth terrain and low vegetation, with extensive upland views (i.e. the Chair of Kildare to the west and the Eastern Uplands to the east) and distant views including the neighbouring Wicklow Mountains.
- The Grand Canal and the Royal Canal Corridors - These are extensive water corridors that flow through the county. The canal corridors and their adjacent lands have been landscaped and enhanced along the sections where the canals flow through urban areas and with the development of Greenways and Blueways.
- Poulaphouca Reservoir - The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greylag Goose and Lesser Blackbacked Gull. Located in the western foothills of the Wicklow Mountains, was created in 1944 by damming of the River Liffey for the purpose of generating electricity from hydropower.
- East Kildare Uplands - The elevated nature of this area provides a defined skyline with scenic views over the central plains of Kildare and the neighbouring Wicklow Mountains which further define the skyline and the extent of visibility. The East Kildare Uplands are rural in character with a number of scenic views from elevated vantage points.

Development in these areas will only be permitted where the integrity and natural beauty of the landscape is not threatened. The Project will have no impact on these areas due to the separation distances between the site and these areas.

11.4.3 Special Areas of Conservation

In addition to the Areas of Primary Amenity above, the County Development Plan also identifies several Special Areas of Conservation (SAC) that require protection from inappropriate and insensitive development. These are:

- Pollardstown Fen - This is the largest remaining calcareous spring-fed fen in Ireland, a national nature reserve, Special Area of Conservation, and a Ramsar site of approximately 220 ha. It is recognised as an internationally important fen ecosystem with unique and endangered plant communities.
- Rye Water Valley at Carton SAC - This is located between Leixlip and Maynooth, in Counties Meath and Kildare, and extends along the Rye Water, a tributary of the River Liffey. The river was arterially drained in the early 1950s but remains the only significant salmon spawning and nursery stream discharging into the River Liffey downstream of Leixlip dam. The Rye Water Valley/Carton SAC is designated for the protection of two molluscs listed on Annex II of the EU Habitats Directive.
- Ballynafagh Lake SAC - This SAC was selected for Alkaline Fens, Desmoulin's Whorl Snail (Vertigo moulinsiana) and Marsh Fritillary (Euphydryas aurinia). Ballynafagh Lake is a shallow alkaline lake with patches of emergent vegetation in the middle, as well as around the shore. Ballynafagh Lake has developed a very natural vegetation with some interesting plant communities, including alkaline fen, a habitat that is listed on Annex I of the E.U. Habitats Directive.
- Mouds Bog SAC - Mouds Bog is significant in terms of its high bog area and geographical location as it is at the eastern extreme of the range of raised bogs in Ireland. It is a site of considerable conservation significance comprising a large, raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland.
- Ballynafagh Bog SAC - The SAC supports the following habitats listed in Annex I of the E.U. Habitats Directive: Raised Bog (Active), Degraded Raised Bog and Rhynchosporion Vegetation. Of particular note is that the bog is one of the most easterly examples of a relatively intact raised bog in Ireland and, together with Mouds bog, is one of only two such systems in Co. Kildare.
- Red Bog SAC - Red Bog is of ornithological significance and breeding birds recorded from the site include Mute Swan, Mallard, Tufted Duck, Coot, Moorhen, Snipe and Black-headed Gull.

It is a policy of the council to protect these areas from inappropriate development and reinforce their character, distinctiveness, and sense of place. However, the Project will have no impact on these areas due to the separation distances between the site and these areas.

11.4.4 Architectural Conservation Areas

There are eleven Architectural Conservation Areas (ACA) that are identified in the Kildare County Development Plan. While The Project site is not located within an ACA, the site is approximately 2.3km west from the Naas ACA. The County Development Plan notes that "*any development, modifications, alterations, or extensions within an ACA are sited and designed appropriately and are not detrimental to the character of the structure or to its setting or the general character of the ACA and are in keeping with any Architectural Conservation Area Statement of Character Guidance Documents prepared for the relevant ACA."* In addition to this, a recorded monument is located within the south-eastern area of the site: recorded monument Ref. no. KD019-028, classified as a 'Fulacht Fiadh'. There is no obvious visible trace of the monument but remains may still exist underground. There is a 20m radius no dig zone proposed for this part of the site. The Project will not have an adverse impact on the Naas ACA or the recorded monument, but the development design should be sensitive to the area. Further details are provided in Chapter 10 of the EIAR.

11.4.5 Scenic Routes/Views

A number of important scenic routes and views have been identified by the County Development Plan as requiring protection as listed in Chapter 13: Landscape Recreation Amenity of the County Development Plan and illustrated on Map V1-13.3. Any development that would interfere with or adversely impact on these scenic routes and views will not be permitted. There are three protected views in close proximity to the Project site.

These are View of the River Liffey – RL07 from Caragh Bridge (approx. 1.15km northwest of the site), and Views to and from bridges on the Grand Canal GC32 – Ploopluck Bridge (approx. 1.35km east of the site) and GC33 – Limerick Bridge (approx. 1km southeast of the site).

11.5 Characteristics of The Project

The Project is described in detail in Chapter 4 Project Description. Matters are of particular relevance to landscape and visual impact are outlined within this section.

Existing external boundary trees and hedgerows will be retained, protected, and augmented with additional native tree and hedge planting where necessary. Around the eastern boundary of the site to the M7, there will be a 30m wide landscape buffer provided. On other boundaries a minimum 10m buffer will be provided, which will allow for earth mounding and native, screen woodland planting to be provided to help integrate the development into the landscape, mitigate visual effects and increase site biodiversity. The principal elements of the landscape design approach will include the following measures:

- Provision of temporary fencing during construction in accordance with BS5837: 2012 for the protection of all trees, hedgerows and vegetation to the perimeter of the site;
- Retention and utilisation of subsoil and topsoil for the creation of landscape mounding, up to 6.5m high, to the site boundary with the M7 and for reinstatement of disturbed landscape areas;
- Provision of security fencing with native hedge planting to boundaries;
- Provision of mixed, native woodland planting, including evergreen and deciduous tree species, planted to the perimeter landscape buffer and mounding;
- Internal landscape areas will include SuDS features include detention/attenuation basins, swales, biofiltration planters and permeable paving integrated with suitable landscape planting and seeding including native grassland meadows; and,
- Planting and grassland management will follow the All-Ireland Pollinator Plan and Guidance documents, helping to increase site biodiversity, with a maintenance programme for the woodland screen planting to ensure establishment.

11.6 Landscape Effects

The assessment of Landscape effects follows the methodology previously described in Section 11.2 and considers those effects which are predicted to occur during the construction and operational phases of the Project.

The construction phase of the Project will result in additional built elements being introduced into the landscape. The operational phase of the Project will result in vertical elements (buildings) being visible within the surrounding landscape.

In order to avoid repetition, an assessment of construction phase impacts and predicted operational phase impacts is included within the following landscape assessments.

11.6.1 Landscape Character Effects

The Project is located within the Kildare County Council area, and the predicted landscape effect of the Project is set out in Table 11.7 below.

Table 11.7: Landscape Character Effects

Northern Lowlands – Naas & Environs

Sensitivity	This LCA is characterised by generally flat terrain and open lands with regular (medium sized) field patterns. Hedgerows are generally well maintained and low, with scattered trees along the field boundaries that partially screen the lowest lying areas. The LCA is considered to have the scope and capacity for positive enhancement, and to have a high tolerance to change. Susceptibility of this LCA to the type of development proposed is judged to be low as industrial development is seen to have a high compatibility with the Northern Lowlands LCA. The value of the LCA is judged to be low. Overall, taking into account the susceptibility and value attached to the LCA, the sensitivity of this LCA is judged to be low.
Magnitude of Change	The Project is located directly within this LCA and predicted effects are considered to be direct. The proposal has also been designed to respect the scale of built form in this landscape albeit with newer elements to reflect and respect surrounding built form. The predicted magnitude of impact during the construction phase is considered to be medium, temporary and direct, limited to the immediate site boundaries and those limited portions of the LCA with unobstructed views towards the Project site. This is robust landscape with frequent built elements, movement and constantly changing through developments and construction activities will blend within this context. The predicted magnitude of impact during the operational phase is considered to be direct and medium, limited to the immediate boundaries and those portions of the LCA with unobstructed views towards the Project site. This is a robust landscape with frequent built elements, movement and constantly changing through developments and the operation development will be consistent with this landscape context. The wider landscape resource has the ability to absorb a development of this scale and it is considered that the magnitude of landscape impact during the construction and operational phases is negligible for remaining portions of the LCA.
Significance of Effect	There are predicted to be minor, adverse direct effects upon the development site itself during the construction phase, which are considered to be temporary in duration. There are predicted to be minor, adverse, direct effects upon the LCA during the operational phase. Remaining portions of the LCA are predicted to experience localised, negligible to minor indirect effects during the operational phase.

11.6.2 Landscape Designation Impacts

With regards to Areas of High Amenity identified in the CDP the Project is not located in proximity to this designation. No significant effects are predicted on the Areas of High Amenity designation due to separation distance.

In addition to the Areas of High Amenity the CDP also identifies Areas of Sensitivity. As mentioned above, the Project site is located in the Northern Lowlands which has been classed as an area of Low Sensitivity. In addition to this, the Kildare County Development Plan has provided guidance on the likely compatibility between a range of land-use classes and the principal landscape areas of the county classified by sensitivity. As the Project is for a Data Centre which is classed as an 'Industrial Project', the development is seen to have a high compatibility with the Northern Lowlands LCA that consists of a robust landscape with frequent built

elements, movement and constantly changing through developments. The proposal has been designed to respect the scale of built form in its immediate surroundings in this landscape albeit with newer elements. Additionally, the Project use at this site accords with the local land use zoning objective set out in the Naas Local Area Plan 2021 - 2027 which has explicitly identified this location as being appropriate for a data centre. The predicted significance of effect is minor adverse.

The Project is not located within an ACA; however, the site is located 2.3km west of the Naas ACA. Due to separation distance and intervening built for and vegetation no effects are predicted on the ACA.

There are three views within 2km of the Project site, however, due to intervening topography and built form it is not possible to view the Project from these viewpoint locations.

A summary of the predicted landscape and visual effect on landscape designations is provided in the summary Table 11.8.

Table 11.8: Summary of Predicted Landscape Effects

Landscape Character / Designation	Predicted Landscape & Visual Effects (Construction Stage)	Predicted Landscape & Visual Effects (Operational Stage)
Areas of Primary Amenity	Minor	Minor
Areas of Secondary Amenity	None	None
Architectural Conservation Areas	None	None
Scenic Routes/Views	None	None
Northern Lowlands LCA	Minor	Minor

11.7 Visual Effects

A series of 15 representative viewpoints have been selected to illustrate the existing visual context of the Project and as an aid to the visual impact assessment. All the viewpoints have been located on publicly accessible roads, footways, and verges (Please refer to EIAR Volume III Appendix 11.3; VP 1 - 15).

Viewpoints selected as part of the visual effects assessment were selected to meet the following criteria;

- A balance of viewpoints from where the main direction of view is towards the Project;
- A range of views towards the Project from within the study area. Selected viewpoints are all located within the study area associated with the Project; and
- Locations of interest e.g. local access roads and settlement.

Views available from each of the selected viewpoint locations are presented in to EIAR Volume III Appendix 11.3 which should be read in conjunction with the following viewpoint assessments below. The selected viewpoints reflect consultation feedback from Kildare County Council. Potential viewpoints further to the south at the junction of M7/R445 was assessed on site but due to extensive screening from built form and vegetation there are no potential views to the Project and this area was scoped out.

The assessment of the existing environment and the impact of the Project on visual receptors has established that there will be no protected views or scenic views significantly affected by the Project.

Further, there will be no important views from visitor amenity areas or tourist sites significantly affected by the Project due intervening topography, vegetation, and distance of potential views.

11.7.1 Viewpoint 1: View northwest from Osberstown Road (L2006)

11.7.1.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.1.2 Existing View

The viewpoint is located on the Osberstown Road, looking southeast towards the development site. The viewpoint shows the hedgerow along the Osberstown Road in the foreground with mature trees and hedgerow in the background, along the boundary of the open field which dominates the view. There are overhead cables and electricity pylons in the field which are also noticeable in the background of the view. The landscape is flat agricultural land.

11.7.1.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and electricity pylons, forming the main visual draw.

Elements of the Project will be partially visible in the distance from this viewpoint. However, existing mature vegetation and proposed planting will provide good screening, and this will allow the Project to integrate seamlessly into the environment without making major changes to the landscape. Any visible portions of the Project are considered to form a minor addition to the overall view, with other elements of the view such as the electricity pylons and surrounding vegetation remaining as the main visual draw.

The Project will operate as a Dark Site with minimal and controlled lighting at the entrance / parking areas, together with low level lighting around the site only used for emergency; in this context no significant lighting effects are predicted from this viewpoint.

11.7.1.4 Magnitude of Impact:

The magnitude of visual impact during the construction phase of the Project is considered to be localised and medium.

The magnitude of visual impact during the operational phases of the Project is considered to be medium.

11.7.1.5 Significance of Effect:

Moderate, localised temporary effect during the construction phase of the Project.

Moderate, localised effect during the operational phase of the Project.

11.7.2 Viewpoint 2: View northwest from R409

11.7.2.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.2.2 Existing View

The viewpoint is located on the R409 which travels along the northern boundary of the site. The foreground of this viewpoint is dominated by grass verges, mature hedgerow, and signage along the road. Mature trees and vegetation can be seen in the background as well as an opening to field to the left of this viewpoint. The landscape is flat agricultural land.

11.7.2.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and signage, forming the main visual draw.

Elements of the Project will be partially visible in the central point from this viewpoint. However, existing mature vegetation will provide screening to the majority of the development and proposed planting will screen any visible elements of the development. This will allow the Project to integrate into the environment. Any visible portions of the Project are considered to form a medium addition to the overall view, with roadside vegetation and planting (existing and proposed) remaining as the main visual draw.

The Project will operate as a Dark Site with minimal and controlled lighting at the entrance / parking areas, together with low level lighting around the site only used for emergency; in this context no significant lighting effects are predicted from this viewpoint.

11.7.2.4 Magnitude of Impact:

The magnitude of visual impact during the construction phase of the Project is considered to be localised and medium.

The magnitude of visual impact during the operational phases of the Project is considered to be medium.

11.7.2.5 Significance of Effect:

Moderate, localised temporary effect during the construction phase of the Project.

Moderate, localised effect during the operational phase of the Project.

11.7.3 Viewpoint 3: View west from Newhall Road

11.7.3.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.3.2 Existing View

The viewpoint is located on the Newhall Road looking east towards the Project site. Mature hedgerow and fencing can be seen along the roadside, with overhead cables to the left and right of the viewpoint and electricity poles and an electricity pylon also visible. Mature trees and vegetation dominate the middle and background of the view. The landscape is mostly flat, agricultural land which rises to the left of the view.

11.7.3.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and electricity pylons, forming the main visual draw.

The Project will be located within this view but slightly difficult to discern. The existing mature vegetation provides partial screening, and this will allow the Project to integrate into the environment without making major changes to the landscape. Any visible portions of the Project are considered to form a minor addition to the overall view, with other elements of the view such as the electricity pylons and surrounding vegetation remaining as the main visual draw.

The Project will operate as a Dark Site with minimal and controlled lighting at the entrance / parking areas, together with low level lighting around the site only used for emergency; in this context no significant lighting effects are predicted from this viewpoint.

11.7.3.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

The magnitude of visual impact during the operational phase of the Project is considered to be negligible.

11.7.3.5 Significance of Effect:

Negligible to minor, temporary effect during the construction phase of the Project.

Negligible to minor, during the operational phase of the Project.

11.7.4 Viewpoint 4: View west from L2030 / Newhall Road Junction

11.7.4.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.4.2 Existing View

The viewpoint is located at the junction between the local L2030 Road and the Newhall Road, looking east towards the site. The view is dominated by large, flat agricultural land with mature trees and vegetation visible in the background of the landscape which indicate the boundary of the field. The right of the viewpoint shows the L2030 Road which has streetlights and mature vegetation located along the side of the road. Overhead cables, and electricity poles and pylons are also visible from this viewpoint.

11.7.4.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be fully screened from this viewpoint by existing mature vegetation. Construction traffic may be visible on the local road network. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and electricity pylons, forming the main visual draw.

The Project will not be visible at any distance from this viewpoint due to the presence of existing mature vegetation provides total screening.

11.7.4.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

There is expected to be no change in relation to the magnitude of visual impact during the operational phase.

11.7.4.5 Significance of Effect

Negligible, temporary effect during the construction phase of the Project.

No change during the operational phase of the Project.

11.7.5 Viewpoint 5: View southwest from L2030

11.7.5.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and occasional pedestrian. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.5.2 Existing View

This viewpoint is located on a bend along the L2030 Road, looking towards the southern boundary of the Project site. The viewpoint is dominated by mature hedgerow which runs along the L2030 Road and a tree can also be seen in the background. The view is enclosed, and the distant horizon view is obscured.

11.7.5.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be well screened from this viewpoint by existing mature vegetation but partial views of the buildings under construction will be available above hedgerows. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing, dense tree line, forming the main visual draw.

Elements of the Project will be partially visible from this viewpoint. However, existing mature vegetation will provide screening to the majority of the development and proposed planting will screen any visible elements of the development. The Project will also be visibly read with existing buildings and this will allow the Project to integrate seamlessly into the environment without making major changes to the landscape.

11.7.5.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be small.

The magnitude of visual impact during the operational phase is considered to be medium.

11.7.5.5 Significance of Effect:

Minor, adverse, temporary effect during the construction phase of the Project.

Moderate effect during the operational phase of the Project.

11.7.6 Viewpoint 6: View south from R445 Link Road

11.7.6.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.6.2 Existing View

This viewpoint is located on the R445 Link Road and is dominated by flat, agricultural land in the foreground with mature trees and vegetation along the landscape. An electricity pylon and overhead cables are visible to the right of the view and in the horizon.

11.7.6.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be partly screened from this viewpoint by existing mature vegetation but the upper parts of the buildings under construction will be directly visible. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and the electricity pylon, forming the main visual draw.

Elements of the Project will be partially visible in the central point from this viewpoint but read with existing buildings located within the view. The existing mature vegetation will provide screening to the majority of the development and proposed planting will screen any visible elements of the development. This will allow the Project to integrate into the environment. Any visible portions of the Project are considered to form a minor addition to the context of the overall view, with vegetation and planting (existing and proposed) remaining as the main visual draw.

11.7.6.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be minor and adverse.

The magnitude of visual impact during the operational phase is considered to be minor.

11.7.6.5 Significance of Effect

Minor, adverse, temporary effect during the construction phase of the Project.

Minor, effect during the operational phase of the Project.

11.7.7 Viewpoint 7: View southeast from Gateway on R445 Millennium Park

11.7.7.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.7.2 Existing View

This viewpoint is located on the R445 Millennium Park at an entrance to a field, looking north towards the Project site. The M7 can be seen in the background while the foreground of the view is dominated by flat, agricultural land and an electricity pylon to the left. Mature trees and vegetation are visible along the boundary of the field and overhead cables can be seen into the distance along with more electricity pylons in the horizon.

11.7.7.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be almost completely screened from this viewpoint by existing mature vegetation but there will be a slight glimpse view of the upper portions of buildings under construction. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and the electricity pylon and M7 traffic, forming the main visual draw.

Elements of the Project will be partially visible this viewpoint. However, existing mature vegetation will provide screening to the majority of the development and proposed planting will screen any visible elements of the development. This will allow the Project to integrate seamlessly into the environment without making major changes to the landscape. Any visible portions of the Project are considered to form a very minor addition to the overall view, with vegetation and planting (existing and proposed) remaining as the main visual draw.

11.7.7.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be minor and adverse.

The magnitude of visual impact during the operational phase is considered to be minor and positive.

11.7.7.5 Significance of Effect

Minor, adverse, temporary effect during the construction phase of the Project.

Minor, effect during the operational phase of the Project.

11.7.8 Viewpoint 8: View east from Millennium Park Road

11.7.8.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.8.2 Existing View

This viewpoint is located on the R445 Millennium Park, looking west towards the Project site. The view is dominated by large, mature trees and hedgerow in the foreground which runs along the footpath, adjacent to the Millennium Park Road. The view is enclosed, and the distant horizon view is screened by the hedgerow.

11.7.8.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation with just a slight glimpse view of a very small proportion of the Project. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing, dense tree line forming the main visual draw.

The Project will be visible for just a slight glimpse view of a very small proportion of the Project. The existing mature vegetation provides significant screening, and this will allow the Project to integrate seamlessly into the environment without making major changes to the landscape. Any visible portions of the Project are considered to form a negligible addition to the overall view, with other elements of the view such as the surrounding vegetation remaining as the main visual draw.

11.7.8.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

The magnitude of visual impact during the operational phase of the Project is considered to be negligible.

11.7.8.5 Significance of Effect

Negligible to minor, temporary effect during the construction phase of the Project.

Negligible to minor effect during the operational phase of the Project.

11.7.9 Viewpoint 9: View northeast from R409 Motorway Bridge

11.7.9.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and occasional pedestrian. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.9.2 Existing View

This viewpoint is located on a bridge over the M7 on the R409, looking southwest towards the Project site. The foreground of the view shows the fencing of the bridge with the M7 below while there is mature vegetation running alongside the M7 in the middle ground of the view. An electricity pylon and overhead cables can be seen in the horizon.

11.7.9.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation with only a very limited glimpse view of a building under construction available. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and the M7 motorway and R409, forming the main visual draw.

Elements of the Project will be only partially visible in the central point from this viewpoint. However, existing mature vegetation will provide screening to the majority of the development and proposed planting will screen any visible elements of the development. This will allow the Project to integrate seamlessly into the environment without making major changes to the landscape. Any visible portions of the Data Centre are considered to form a very minor addition to the overall view, with vegetation and the M7 motorway and R409 remaining as the main visual draw.

11.7.9.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

The magnitude of visual impact during the operational phase is considered to be negligible.

11.7.9.5 Significance of Effect

Negligible to minor, adverse, temporary effect during the construction phase of the Project.

Negligible to minor, effect during the operational phase of the Project.

11.7.10 Viewpoint 10: View north from Osberstown Business Park

11.7.10.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.10.2 Existing View

This viewpoint is located within Osberstown Business Park, looking southwest towards the site. Footpaths, grass verges, signage and streetlights are the most prominent features in the view. An area of grass, trees and vegetation is visible in the middle of this viewpoint. Mature trees and vegetation, along with overhead cables and electricity pylons can be seen in the background and in the horizon.

11.7.10.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be directly visible from this viewpoint. Such effects are considered to be short term, temporary effects within the overall view, with distinctive features, such as the existing tree line and the entrance to Osberstown Business Park, forming the main visual draw.

Elements of the Project will be directly visible in this viewpoint. The Project is read in the context of the Oberstown Business and road network and in that context does integrate into the environment. Proposed planting will significantly reduce the visibility of new buildings.

11.7.10.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be medium.

The magnitude of visual impact during the operational phase is considered to be medium.

11.7.10.5 Significance of Effect

Moderate, adverse, temporary effect during the construction phase of the Project.

Moderate, effect during the operational phase of the Project.

11.7.11 Viewpoint 11: View north from Osberstown Business Park Entrance

11.7.11.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.11.2 Existing View

This viewpoint is located at the entrance to Osberstown Business Park, looking southeast towards the Project site. The R409 and the mature trees and vegetation along the road are the dominant features of this view along with the entrance to the business park to the right. Overhead cables and electricity pylons can be seen further long the R409 to the right of the viewpoint, however, the background and horizon is well screened by the existing vegetation along the roadside.

11.7.11.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be partially screened from this viewpoint by existing mature vegetation. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line, R409 and the entrance to Osberstown Business Park, forming the main visual draw.

Elements of the Project will be visible to the left of this viewpoint. While, existing mature vegetation and proposed planting will provide screening to the majority of the development, a large element of the development will be partly visible in the viewpoint. However, the Project will not look out of place in the existing

landscape and the existing vegetation and electricity pylons will allow the development to integrate into the landscape.

11.7.11.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be medium and adverse.

The magnitude of visual impact during the operational phase is considered to be medium.

11.7.11.5 Significance of Effect

Moderate, adverse, temporary effect during the construction phase of the Project.

Moderate, effect during the operational phase of the Project.

11.7.12 Viewpoint 12: View southwest from Newhall Rest Area

11.7.12.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.12.2 Existing View

This viewpoint is located at the Newhall rest area, approximately 1km southwest from the Project site. Mature trees and vegetation to the left of this view and in the distance are the dominant features of this viewpoint. A large agricultural field also dominates this viewpoint. Electricity pylons and overhead cables can be seen in the horizon and the horizon is well screened by existing vegetation.

11.7.12.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation with just the construction of the upper parts of some buildings visible. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and electricity pylons, forming the main visual draw.

The Project will visible but distance from this viewpoint. The existing mature vegetation provides good screening and combined with the distance of the viewpoint this will allow the Project to integrate seamlessly into the environment without making major changes to the landscape.

11.7.12.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

11.7.12.5 Significance of Effect

Negligible to minor, temporary effect during the construction phase of the Project.

Negligible to minor during the operational phase of the Project.

11.7.13 Viewpoint 13: View east from Millennium Park Roundabout

11.7.13.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.13.2 Existing View

This viewpoint is located at the Millennium Park Roundabout, looking west towards the Project. the dominant feature of this viewpoint is the mature vegetation in the centre and to the right of the viewpoint as well a number of streetlights. The view is enclosed, and the distant horizon view is screened by the mature vegetation.

11.7.13.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be fully screened from this viewpoint by existing mature vegetation.

The Project will not be visible at any distance from this viewpoint. The existing mature vegetation provides total screening.

11.7.13.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be no change.

There is considered to be no change in relation to the magnitude of visual impact during the operational phase.

11.7.13.5 Significance of Effect

No change, temporary effect during the construction phase of the Project.

No change during the operational phase of the Project.

11.7.14 Viewpoint 14: View northwest from R409 Road

11.7.14.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.14.2 Existing View

This viewpoint is located along the R409, looking southeast towards the Project. the viewpoint is dominated by mature vegetation along the roadside and in the distance. A flat, agricultural plot of land is visible to the right of this viewpoint as well as an electricity pole and overhead cables. The view is enclosed, and the distant horizon view is screened by the mature vegetation.

11.7.14.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be almost completely screened from this viewpoint by existing mature vegetation. Such limited effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing tree line and electricity poles, forming the main visual draw.

The Project will be partially visible but distant from this viewpoint. The existing mature vegetation provides almost total screening, and this will allow the Project to integrate seamlessly into the environment without

making major changes to the landscape. Any limited visible portions of the Project are considered to form a very minor addition to the overall view, with other elements of the view such as the electricity poles and surrounding vegetation remaining as the main visual draw.

11.7.14.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

The magnitude of visual impact during the operational phase of the Project is considered to be negligible.

11.7.14.5 Significance of Effect

Negligible to minor, temporary effect during the construction phase of the Project.

Negligible to minor during the operational phase of the Project.

11.7.15 Viewpoint 15: View south from M7 Business Park

11.7.15.1 Viewpoint Description and Sensitivity

This view is predominantly available to vehicle users and pedestrians. Overall, taking into account the receptor susceptibility, and the value of the view, the sensitivity is judged to be medium.

11.7.15.2 Existing View

This viewpoint is located within the M7 Business Park, looking north towards the Project site. As this viewpoint is located within the M7 Business Park, the view is dominated by commercial buildings, with mature trees visible in the central point of the view as well. The existing commercial buildings and the existing vegetation make the view enclosed and provide screening from the horizon.

11.7.15.3 Predicted Effects

Temporary construction phase activities associated with the construction of the Project will be largely screened from this viewpoint by existing mature vegetation with only limited visibility of the construction of upper portions of some buildings. Such effects are considered to be temporary effects within the overall view, with distinctive features, such as the existing commercial buildings, forming the main visual draw.

The Project be visible from this viewpoint for a very small portion of the total Project but read in the context of the M7 Business Park. The existing commercial buildings as well as the mature vegetation provides almost complete screening, and this will allow the Project to integrate seamlessly into the environment without making major changes to the landscape.

11.7.15.4 Magnitude of Impact

The magnitude of visual impact during the construction phase of the Project is considered to be negligible.

The magnitude of visual impact during the operational phase of the Project is considered to be negligible.

11.7.15.5 Significance of Effect

Negligible to minor, temporary effect during the construction phase of the Project.

Negligible to minor during the operational phase of the Project.

Table below summarises the predicted significance of visual effect for each of the previously assessed viewpoints above.

Table 11.9: Summary of Predicted Visual Effect

Viewpoint		Predicted Visual Impacts (Construction Stage)	Predicted Visual Impacts (Operational Stage)
1	View north from Osberstown Road (L2006)	Moderate adverse	Moderate
2	View northwest R409	Moderate adverse	Moderate
3	View west Newhall Road	Negligible to minor adverse	Negligible to minor
4	View west L2030 / Newhall Road Junction	Negligible adverse	No change
5	View south L2030	Minor adverse	Moderate
6	View south R445 Link Road	Minor adverse	Minor
7	View southeast Gateway on R445 Millennium Park	Minor adverse	Minor
8	View east Millennium Park Road	Negligible to minor adverse	Negligible to minor
9	View northeast R409 Motorway Bridge	Negligible to minor adverse	Negligible to minor
10	View north Osberstown Business Park	Moderate adverse	Moderate
11	View north Osberstown Business Park Entrance	Moderate adverse	Moderate
12	View southwest Newhall Rest Area	Negligible to minor adverse	Negligible to minor
13	View east Millennium Park Roundabout	No change	No change
14	View northwest R409 Road	Negligible to minor adverse	Negligible to minor
15	View south M7 Business Park	Negligible to minor adverse	Negligible to minor

11.7.16 Glint and Glare Effects

A Glint and Glare Assessment in respect of the solar PV panels located on the roof of each Data Centre, is provided in Appendix 11.4, Volume II. The results of the related modelling indicate that solar reflections are geometrically possible towards some road receptors on the R409 however the Data Centre roof parapet is predicted to screen the visibility of the solar PV panels. As such, no significant effects are predicted upon aviation operations associated with the nearby airfields (Allenwood Airfield, Millicent Airfield, and Gowran Grange Airfield). No Glint and Glare effects are predicted towards road users travelling along the nearby roads and the residential amenity for nearby dwellings due to the buildings' parapet blocking the views of the panels. Further on this basis no mitigation is recommended.

11.7.17 Lighting Impacts

The Project will operate as a 'Dark Site' where minimal lighting is only used when required in order to avoid light spill beyond the site boundary and disturbance of wildlife.

New external lighting will be provided to the following areas:

- Internal site access roads
- Car parks (at Data Centres and ancillary buildings)
- Site security lighting (including emergency escape lighting)

Visual impact of proposed lighting is minimised by the use of the following: luminaires with good optical distribution, use of glare shields, selecting suitable luminaire height, dimmable light source, good lighting control and by switching the light off for a period (post curfew).

Lighting systems in areas covered by CCTV cameras will be designed and installed to facilitate high-definition images recorded by the video surveillance system. Perimeter lighting will be provided along the full boundary of the site. This will be triggered by movement detections covering the complete perimeter.

A Lighting Assessment Report for the Project is provided in Volume II, Appendix 4.4; a lighting assessment, relevant to proposed works on the R409 is provided in Volume II, Appendix 4.2 I.

The measures set out above will reduce the potential sky glow effect. However, the addition of lighting to existing night views of the Project site will nevertheless result in a slight increase in existing sky glow on the night-time views from areas around the Project although this will be barely perceptible in the context of the level of sky glow in the surrounding landscape. New lights will be read against the background of significant existing lights in the Project area and the wider night-time landscape and the significance of effect is predicted to be negligible adverse for night-time views where such views are available.

11.7.18 Cumulative Effects

11.7.18.1 Other Projects

As identified in Chapter 1 of the EIAR (Section 1.4), there are a number of other projects which have been identified for consideration in terms of their potential for cumulative effects. These projects with which the Project may possibly have cumulative effects have been considered in order to identify the likely cumulative landscape and visual effects, if any.

These projects, that include Solar Farms, Battery Storage projects and a Data Centre, has established that the nearest project to the Project site is a solar farm located approx. 5km. At these large distances and with substantial buildings and strong vegetation located between the Project sites there is no potential for any cumulative landscape and visual effects. The potential cumulative projects are all to remote from the Project to have any potential for cumulative landscape and visual effects.

Overall, when potential construction and operational stage cumulative landscape and visual effects are considered for the Project in combination with permitted and planned projects they will not result in any significant cumulative landscape and visual effects due to a combination of separation distance, intervening development and the nature and setting of the proposals. Construction stage activities involve an increase in construction traffic for all cumulative projects. HGV traffic is frequent feature of this landscape, and the existing wider Dublin road network consists of very busy roads with low potential for significant cumulative visual impacts as a result. The operational stage activities as part of the Project are sufficiently separated from any permitted or planned projects in the area surrounding the Project to avoid potential cumulative effects while permitted or planned developments within the surrounding area or so similar in character that they are difficult to discern from the existing busy context

11.7.18.2 Gas Connection

As identified in Chapter 1 of the EIAR (Section 1.4.4), the Project will require a physical connection to the gas network to supply the on-site gas turbines. The final, detailed design, consent and construction of the required infrastructure works will be the responsibility of GNI in the exercise of their own statutory functions, and therefore Herbata Ltd is not seeking planning consent to carry out these works as part of the Project.

The GNI Infrastructure Upgrade Outline Report, identifying the specification and most likely route for the connection and a description of the works required to provide same, is included in Volume II, Appendix 1.2. The report provides sufficient detail and information to allow a robust cumulative impact assessment to be conducted.

The GNI Infrastructure Upgrade Outline Report indicates that the most likely route for the new high-pressure gas distribution pipeline will be from the location of the existing GNI above ground installations (AGIs) at Glebe

West and Naas Town to the Project site following a combination of the existing road network and the route of existing utilities. A large portion of the gas pipeline will likely cross agricultural / open lands will likely require a construction corridor for the works that consists of a 14m wide strip that is normally reinstated to the existing land use. Once constructed and with reinstatement complete a pipeline of this nature will have no cumulative landscape and visual effects as it is below ground. The construction stage will result in activities that will be noticeable but temporary. Construction traffic while visible will blend with existing traffic on the busy road network found in the local landscape with no significant effect. Pipeline work along roads is a common feature in this landscape and temporary and transient in nature and no significant cumulative landscape and visual effects are predicted. Pipeline works on agricultural lands will result in temporary disturbance but will all be reinstated. Overall, when the potential for cumulative landscape and visual impacts are considered there will be no significant cumulative effects for the Project and the GNI Gas Connection.

11.8 Mitigation Measures

Mitigation measures are those taken to help reduce or remedy landscape and visual impacts or compensate for the loss of landscape value created by the development.

11.8.1 Mitigation of Construction Impacts

The clearance of the existing site and subsequent construction works will be restricted to land within the site boundary. A site compound, including site accommodation, together with hoarding, scaffolding, cranes, and other associated temporary works will be required during the construction phase. These features will be visible during the construction phase from areas immediately adjacent to the Project site. Cranes and scaffolding may be visible at a greater distance, though this will be dependent upon view direction and intervening built form. These temporary features will be viewed as a feature of construction in the urban setting. All construction impacts are limited to the construction period and therefore of temporary duration.

11.8.2 Mitigation of Operational Impacts

Please refer to EIAR Volume III Technical Drawings & Figures for details on the proposed hard and soft landscape plans for the Project, which are set on the planning application and described in Chapter 4 of the EIAR.

Only those trees which require removal to facilitate the development will be replaced. All other trees which can be maintained within the Project shall be retained and protected from damage in accordance with BS 5837:2012 (Trees in relation to design, demolition, and construction).

It is important that a landscape management plan is prepared to ensure the healthy establishment of all trees within the Project and the replacement of any dead or dying plants in subsequent years.

11.9 Conclusion

A review of the Kildare County Development Plan 2023-2029 has established that the Project is not located in proximity to any landscape or scenic designations and as such there are no predicted effects on any primary or secondary amenity area and/or scenic views.

Analysis of the landscape character within the immediate environs of the Project site displays typical rural character consisting of largely flat, gently undulating topography with grassland vegetation and agricultural crops. The Project is located within an existing industrial area with other industrial developments in close proximity. Therefore, the Project will not be out of character with the surrounding environment. The LCA is considered to have the scope and capacity for positive enhancement, and to have a high tolerance to change. The value of the LCA is judged to be low. Overall, taking into account the susceptibility and value attached to the LCA, the sensitivity of this LCA is judged to be low.

The Northern Lowlands LCA has been classed as an area of Low Sensitivity in the County Development Plan. Furthermore, the Project is classed as an ‘Industrial Project’ which is seen to have a high compatibility with the Northern Lowlands LCA. Taking this into account, the Project should not have a detrimental impact to this LCA or the surrounding area.

Of the 15no. viewpoints assessed for impacts, only one will have moderate visual impacts at the operational stage, while the rest of the viewpoints will either have minor changes or no changes at all to the view. This is due to the large amounts of existing mature vegetation and existing built form in the area surrounding the Project site that provides adequate screening to the site. Additionally, the proposal includes planting which will provide further screening.

A Glint and Glare Assessment in respect of the solar PV panels located on the roof of each Data Centre, has been completed and no significant effects are predicted upon aviation operations associated with the nearby airfields (Allenwood Airfield, Millicent Airfield, and Gowran Grange Airfield) and no Glint and Glare effects are

predicted towards road users travelling along the nearby roads and the residential amenity for nearby dwellings due to the buildings' parapet blocking the views of the panels.

The potential for impacts from lighting has been assessed and the findings show that new lights will be read against the background of significant existing lights in the Project area and the wider night-time landscape and the significance of effect is predicted to be negligible adverse for night-time views where such views are available.

Overall, when potential construction and operational stage cumulative landscape and visual effects are considered for the Project in combination with permitted and planned projects they will not result in any significant cumulative landscape and visual effects due to a combination of separation distance, intervening development and the nature and setting of the proposals.

Overall, the wider landscape and visual resources of the development's surroundings have the capacity to accommodate a development of this type and scale.