

Appendix F – Landscape & Visual Impact Assessment



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LANDSCAPE & VISUAL IMPACT ASSESSMENT

Proposed 110kv Substation

Belmayne, Co. Dublin.

Prepared by Macro Works Ltd on behalf of ESB

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This LVIA should be read in conjunction with the LVIA Photomontages produced by Macro Works Ltd



1. LANDSCAPE AND VISUAL IMPACT ASSESSMENT

1.1 INTRODUCTION

This Landscape and Visual Assessment (LVIA) has been prepared to accompany a planning application for a 110kv substation at Belmayne in County Dublin.

This LVIA describes the landscape context of the proposed development and assesses the likely landscape and visual impacts of the scheme on the receiving environment. Although closely linked, landscape and visual impacts are assessed separately.

- Landscape Impact Assessment (LIA) relates to assessing effects of a development on the landscape as a resource in its own right and is concerned with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character.
- Visual Impact Assessment (VIA) relates to assessing effects of a development on specific views and on the general visual amenity experienced by people. This deals with how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. Visual impacts may occur from; Visual Obstruction (blocking of a view, be it full, partial or intermittent) or; Visual Intrusion (interruption of a view without blocking).

1.1.1 Approach and Statement of Authority

This LVIA adopts an approach that is founded in the following best practice guidance documents:

- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) publication entitled Guidelines for Landscape and Visual Impact Assessment, 2013 (GLVIA3);
- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022); and
- 'Photography and Photomontage in Landscape and Visual Impact Assessment', Landscape Institute Technical Guidance Note 06/2019.

This LVIA was prepared by Molly McKeon, Graduate LVIA consultant and reviewed by Ricard Barker, Divisional Director at Macro Works Ltd of Cherrywood Business Park, Loughlinstown, Dublin 18; a consultancy firm specialising in Landscape and Visual Assessment and associated maps and graphics. Macro Works' relevant experience includes a broad range of infrastructural, renewable energy, industrial and commercial projects since 1999, including numerous urban, residential, and mixed use development projects.

1.1.2 Description of the Proposed Development

The Proposed Development will consist of the construction of a 110kV / 38kV / Medium Voltage (MV) electrical substation and will include the following:

1. Construction of 1 no. substation compound (c. 5,650 sqm) securely enclosed with 2.6m high palisade fencing and gates, containing:
 - 1 no. 110kV Gas Insulated Switchgear (GIS) building (c. 707 sqm; c.12m in height)
 - 1 no. 38kV Gas Insulated Switchgear (GIS) building (c. 232 sqm; c. 7m in height).
 - 2 no. Bunded 110kV/38kV Transformers (c.5m in height) with associated electrical equipment.
 - 2 no. Bunded 38kV / MV Transformers (c.5m in height) with associated electrical equipment.

- 2 no. fire walls (c. 5.5m in height by c.5m in length) separating the 110kV / 38kV Transformers and 38kV / MV Transformers.
 - 3 no. Bunded Arc Suppression Coils (c. 4m in height) with associated electrical equipment.
 - 2 no. Neutral Earth Resistor (c. 2m in height) and Neutral Earth Switch (c. 3.9m in height).
 - Perimeter RC wall with Stone Facing on West, North and South Elevations (2.6m high).
2. Removal and reinstatement of 2 no. Gate Piers at existing entrance and provision of vehicular gate (c. 5m wide x c. 2.6m in height) and all associated works at the existing entrance on the R139.
 3. All associated site development works including internal access roads, lighting poles (c.5.75m in height), 3 no. lighting monopoles (c.15m in height), 1no. emergency stand-by diesel generator, telecommunications, landscaping, site services including drainage, trenching and ducting and all other ancillary works.

1.2 METHODOLOGY

This document uses methodology as prescribed in the previously mentioned GLVIA3, which follows the European Landscape Convention (ELC) definition of landscape:

‘Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors’ (Council of Europe, 2000). Thus, GLVIA-2013 covers all landscapes from “high mountains and wild countryside to urban and fringe farmland (rural landscapes), marine and coastal landscapes (seascapes) and the landscapes of villages towns and cities (townscapes)” - whether protected or degraded.

1.2.1 Scope of the Assessment

GLVIA3 establishes guidelines and not a specific methodology. The preface recognises that:

‘This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.’

The methodology for this assessment has therefore been developed specifically for this assessment to ensure that it is appropriate and fit for purpose. The LVIA Methodology can be summarised as undertaking the following key tasks:

- Desk study and site visits in August 2023;
- Defining the Baseline Landscape setting and conditions;
- Identification and Evaluation of key components of the proposed development;
- Consideration of Mitigation Measures;
- Assessment of Landscape Effects;
- Assessment of Visual Effects; and
- Summary Statement of Significance.

1.2.2 Study Area

Due to the nature of the landscape setting, the development and height of the proposed structures. A 5km study area radius from the application site boundary has been applied to this landscape assessment. From similar studies, it is anticipated that the Proposed Development is not likely to give rise to significant landscape or visual impact beyond approximately 2km. in the interest of a comprehensive appraisal, a 5km radius study area is used in this instance.



Figure 1.1 5km Extent of the Study Area

1.2.3 Landscape Impact Assessment Criteria

This part of the LVIA provides an assessment of how the introduction of the proposed development will affect the physical features and fabric of the landscape, and then how the proposals influence landscape character with reference to published descriptions of character and an understanding of the contemporary character of the landscape as informed through desktop and site studies.

When assessing the potential landscape effects of the development, the value and sensitivity of the landscape receptor is weighed against the magnitude of impact to determine the significance of the landscape effect. Criteria outlined below are used to guide these judgements.

1.2.3.1 Landscape Sensitivity

The sensitivity of the landscape to change is the degree to which a particular setting can accommodate changes or new elements without unacceptable detrimental effects to its essential characteristics. In accordance with GLVIA3, the sensitivity of a landscape receptor (Landscape Character Area or feature) is derived from combining judgements in relation to its susceptibility to change and its value. The judgement 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. Landscape Sensitivity is classified using the following criteria set out in Table 1.1.

Table 1.1 Landscape Value and Sensitivity

Sensitivity	Description
Very High	Areas where the landscape character exhibits a very low capacity for change in the form of development. Examples of which are high value landscapes, protected at an international or national level (World Heritage Site/National Park), where the principal management objectives are likely to be protection of the existing character.
High	Areas where the landscape character exhibits a low capacity for change in the form of development. Examples of which are high value landscapes, protected at a national or regional level (Area of Outstanding Natural Beauty), where the principal management objectives are likely to be considered conservation of the existing character.
Medium	Areas where the landscape character exhibits some capacity and scope for development. Examples of which are landscapes, which have a designation of protection at a county level or at non-designated local level where there is evidence of local value and use.
Low	Areas where the landscape character exhibits a higher capacity for change from development. Typically, this would include lower value, non-designated landscapes that may also have some elements or features of recognisable quality, where landscape management objectives include, enhancement, repair and restoration.
Negligible	Areas of landscape character that include derelict, mining, industrial land or are part of the urban fringe where there would be a reasonable capacity to embrace change or the capacity to include the development proposals. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher landscape value.

1.2.4 Magnitude of Change – Landscape

The magnitude of change is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development and to a lesser extent the duration and reversibility of that effect. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the immediate setting that may have an effect on the landscape character. Table 1.2 outlines criteria used to inform this judgement.

Table 1.2 Magnitude of Change – Landscape

Criteria	Description
Very High	Change that would be large in extent and scale with the loss of critically important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an extensive change of the landscape in terms of character, value and quality.

Criteria	Description
High	Change that would be more limited in extent and scale with the loss of important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to a considerable change of the landscape in terms of character, value and quality.
Medium	Changes that are modest in extent and scale involving the loss of landscape characteristics or elements that may also involve the introduction of new uncharacteristic elements or features that would lead to noticeable changes in landscape character, and quality.
Low	Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic landscape elements or the addition of new features or elements that would lead to discernible changes in landscape character, and quality.
Negligible	Changes affecting small or very restricted areas of landscape character. This may include the limited loss of some elements or the addition of some new features or elements that are characteristic of the existing landscape or are hardly perceivable leading to no material change to landscape character, and quality.

1.2.5 Visual Impact Assessment Criteria

This part of the LVIA provides an assessment of how the introduction of the proposed development will affect views within the landscape. It therefore needs to consider:

- Direct impacts of the proposed development upon views 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.

It has been deemed appropriate to structure the assessment around a series of representative viewpoint locations. All viewpoints are located within the public domain and are representative of views available from main thoroughfares and pedestrian areas within the vicinity of the proposed development. The selected viewpoints are considered to be comprehensive in communicating the variable nature of the visual effects.

When assessing the potential visual effects of the development, the sensitivity of the visual receptor is weighed against the magnitude of the visual impact to determine the significance of the visual effect. Criteria outlined below are used to guide these judgements.

1.2.5.1 *Sensitivity of Visual Receptors*

As with landscape sensitivity, the sensitivity of a visual receptor is categorised as Very High, High, Medium, Low, and Negligible. Unlike landscape sensitivity however, the sensitivity of visual receptors has an anthropocentric (human) basis. It considers factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity the viewer is engaged in and whether this heightens their awareness of the surrounding environment.

A list of the factors considered by the assessor in estimating the level of sensitivity for a particular visual receptor is outlined below to establish visual receptor sensitivity at each viewpoint location.

1.2.5.2 *Susceptibility of Visual Receptors to Change*

In accordance with GLVIA3, visual receptors most susceptible to changes in views and visual amenity are:

- *“Residents at home;*

- *People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views;*
- *Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience;*
- *Communities where views contribute to the landscape setting enjoyed by residents in the area;*
- *Travellers on road rail or other transport routes where such travel involves recognised scenic routes and awareness of views is likely to be heightened”.*
- *Visual receptors that are less susceptible to changes in views and visual amenity include;*
- *“People engaged in outdoor sport or recreation, which does not involve or depend upon appreciation of views of the landscape;*
- *People at their place of work whose attention may be focussed on their work or activity, not their surroundings and where the setting is not important to the quality of working life”.*

1.2.5.3 Values attached to Views

The value attached to a view is determined by considering the following:

- Recognised scenic value of the view (Development Plan designations, guidebooks, touring maps, postcards etc). These represent a consensus in terms of which scenic views and routes within an area are strongly valued by the population because in the case of County Development Plans, for example, a public consultation process is required;
- Views from within highly sensitive landscape areas. These are likely to be in the form of designated areas such as National Parks and other highly susceptible landscape areas, which are incorporated within the Development Plan and therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them;
- Primary views from residential receptors. Even within built up urban areas, views from residential properties are an important consideration in respect of residential amenity;
- Intensity of use, popularity. This relates to the number of viewers likely to experience a view on a regular basis and whether this is significant at a national or regional scale;
- Provision of vast, elevated panoramic views. This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas;
- Sense of remoteness and/or tranquillity. Receptors taking in a remote and tranquil scene, which is likely to be fairly static, are likely to be more receptive to changes in the view than those taking in the view of a busy street scene, for example;
- Degree of perceived naturalness. Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by distinctly manmade features;
- Presence of striking or noteworthy features. A view might be strongly valued because it contains a distinctive and memorable landscape / townscape feature such as a cathedral or castle;
- Historical, cultural and / or spiritual significance. Such attributes may be evident or sensed by receptors at certain viewing locations, which may attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings;
- Rarity or uniqueness of the view. This might include the noteworthy representativeness of a certain landscape type and considers whether the receptor could take in similar views anywhere in the broader region or the country;
- Integrity of the landscape character. This looks at the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components;

- Sense of place. This considers whether there is special sense of wholeness and harmony at the viewing location;
- Sense of awe. This considers whether the view inspires an overwhelming sense of scale or the power of nature.

Those locations which are deemed to satisfy many of the above criteria are likely to be of higher sensitivity, and no relative importance is inferred by the order of listing.

It is recognised that a viewer’s interpretation and experience of the landscape can have preferential and subjective components. Where relevant, judgements are made on those elements of the landscape that are considered to contribute more prominently and positively to the visual landscape resource as well as those elements that contribute negatively. Overall sensitivity may be a result of a number of these factors or, alternatively, a strong association with one or two in particular.

1.2.6 Magnitude of Change – Visual

The magnitude of change is again a product of the scale, extent, or degree of change that is likely to be experienced as a result of the proposed development. This is directly influenced by its ‘visual presence / prominence’, as experienced by visual receptors in the landscape. These terms are somewhat quantitative in nature, and essentially relate to how noticeable or ‘dominant’ the proposal is within a particular view. Aside from the obvious influence of scale and distance, a development’s visual presence is influenced by the extent and complexity of the view, contextual movement in the landscape, the nature of its backdrop, and its relationship with other focal points or prominent features within the view. It is often, though not always, expressed using one of the following terms: Minimal; Sub-dominant; Co-dominant; Dominant; Highly dominant. Criteria used to inform judgements are provided in Table 1.3.

Table 1.3 Magnitude of Change – Visual

Criteria	Description
Very High	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.
High	A major change in the view that is highly prominent and has a strong influence on the overall view. This may involve the substantial obstruction of existing views or a complete change in character and composition of baseline, e.g. through removal of key elements or the introduction of new features that would heavily influence key elements.
Medium	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. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.
Low	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.
Negligible	Very slight change in baseline, i.e. pre-development view - change would be barely discernible. Composition and character of view substantially unaltered.

1.2.7 Significance of Effect

The significance of a landscape or visual effect is based on a balance between the sensitivity of the receptor and the magnitude of change, and is categorised as Profound, Substantial, Moderate, Slight, or Imperceptible. Intermediate judgements are also provided to enable an effect to be more accurately described where relevant. ‘No Effect’ may also be recorded as appropriate where the effect is so negligible it is not noteworthy.

The significance category judgement is arrived at using the Significance Matrix at Table 1.4 as a guide. This applies the principle of significance being a function of magnitude weighed against sensitivity, but employs slightly different terminology that avoids the potentially confusing use of the term ‘significant’ (as recommended by GLVIA3 Statement of Clarification 1/13 (Landscape institute, 10th June 2013)).

Indicative criteria descriptions used in relation to the significance of effect category are presented at Table 1.5.

Table 1.4 Significance Matrix

	Sensitivity of Receptor				
Magnitude	Very High	High	Medium	Low	Negligible
Very High	Profound	Profound-substantial	Substantial	Moderate	Slight
High	Profound-substantial	Substantial	Substantial-moderate	Moderate-slight	Slight-imperceptible
Medium	Substantial	Substantial-moderate	Moderate	Slight	Imperceptible
Low	Moderate	Moderate-slight	Slight	Slight-imperceptible	Imperceptible
Negligible	Slight	Slight-imperceptible	Imperceptible	Imperceptible	Imperceptible

Table 1.5 Indicative significance of effect criteria descriptions

	Landscape	Visual
Profound	There are notable changes in landscape characteristics over an extensive area or a very intensive change over a more limited area.	The view is entirely altered, obscured or affected.
Substantial	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the landscape. There are notable changes in landscape characteristics over a substantial area or an intensive change over a more limited area.	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the visual environment. The proposal affects a large proportion of the overall visual composition, or views are so affected that they form a new element in the physical landscape.
Moderate	An effect that alters the character of the environment in a manner that is	An effect that alters the character of the visual environment in a manner that is

	Landscape	Visual
	consistent with existing and emerging baseline trends. There are minor changes over some of the area or moderate changes in a localised area.	consistent with existing and emerging trends. The proposal affects an appreciable segment of the overall visual composition, or there is an intrusion in the foreground of a view.
Slight	An effect which causes noticeable changes in the character of the landscape without affecting its sensitivities. There are minor changes over a small proportion of the area or moderate changes in a localised area or changes that are reparable over time.	An effect which causes noticeable changes in the character of the visual environment without affecting its sensitivities. The affected view forms only a small element in the overall visual composition or changes the view in a marginal manner.
Imperceptible	An effect capable of measurement but without noticeable consequences. There are no noticeable changes to landscape context, character or features.	An effect capable of measurement but without noticeable consequences. Although the development may be visible, it would be difficult to discern resulting in minimal change to views.

It is important that the likely effects of the proposals are transparently assessed and understood in order that the determining authority can bring a balanced, well-informed judgement to bear when making a planning decision.

As such, whilst the significance matrix and criteria provide a useful guide, the significance of an effect is ultimately determined by the landscape specialist using professional judgement, and also in the context of occasionally using hybrid judgements to account for nuance.

Effects assessed as ‘Substantial’ or greater (shaded cells) are considered to be the most notable in landscape and visual terms, and may be regarded as ‘Significant’, albeit it is important to note that this is not a reflection on their acceptability in planning terms.

1.2.8 Quality of Effects

In addition to assessing the significance of landscape and visual effects, the quality of the effects is also determined. Within this LVIA, effects are described as negative/adverse, neutral, or positive/beneficial, and the following criteria has been used to guide these judgements.

- Positive/beneficial - A change which improves the quality of the environment, enhancing the existing view/landscape;
- Neutral - No effects or effects that are imperceptible, within normal bounds of variation e.g. will neither detract from nor enhance the existing view/landscape;
- Negative/adverse - A change which reduces the quality of the environment, detracting from the existing view/landscape.

In the case of new energy / infrastructure developments within rural and semi-rural settings, the landscape and visual change brought about by an increased scale and intensity of built form is seldom considered to be positive / beneficial. Effects in these contexts are generally considered to be adverse in nature, or neutral, where the effect has little influence on the landscape/views.

1.3 LANDSCAPE AND VISUAL POLICY CONTEXT AND DESIGNATIONS

1.3.1 Dublin City County Development Plan 2022-2029

The proposed development is located in Dublin City Council's jurisdiction, however, the wider study area traverses into Fingal County and therefore both County Development Plans are relevant.

Chapter 4 - 'Shape and Structure of the City' of the Dublin City Development Plan contains relevant policies in respect of Dublin's inner suburbs and outer city. Clongriffin- Belmayne has been designated a 'Strategic Development Regeneration Area'(SDRA). The Dublin City Council divide the City into several geographically specific zoning areas. The proposed development is located within the Inner Suburbs and Outer City of the Metropolitan Area.

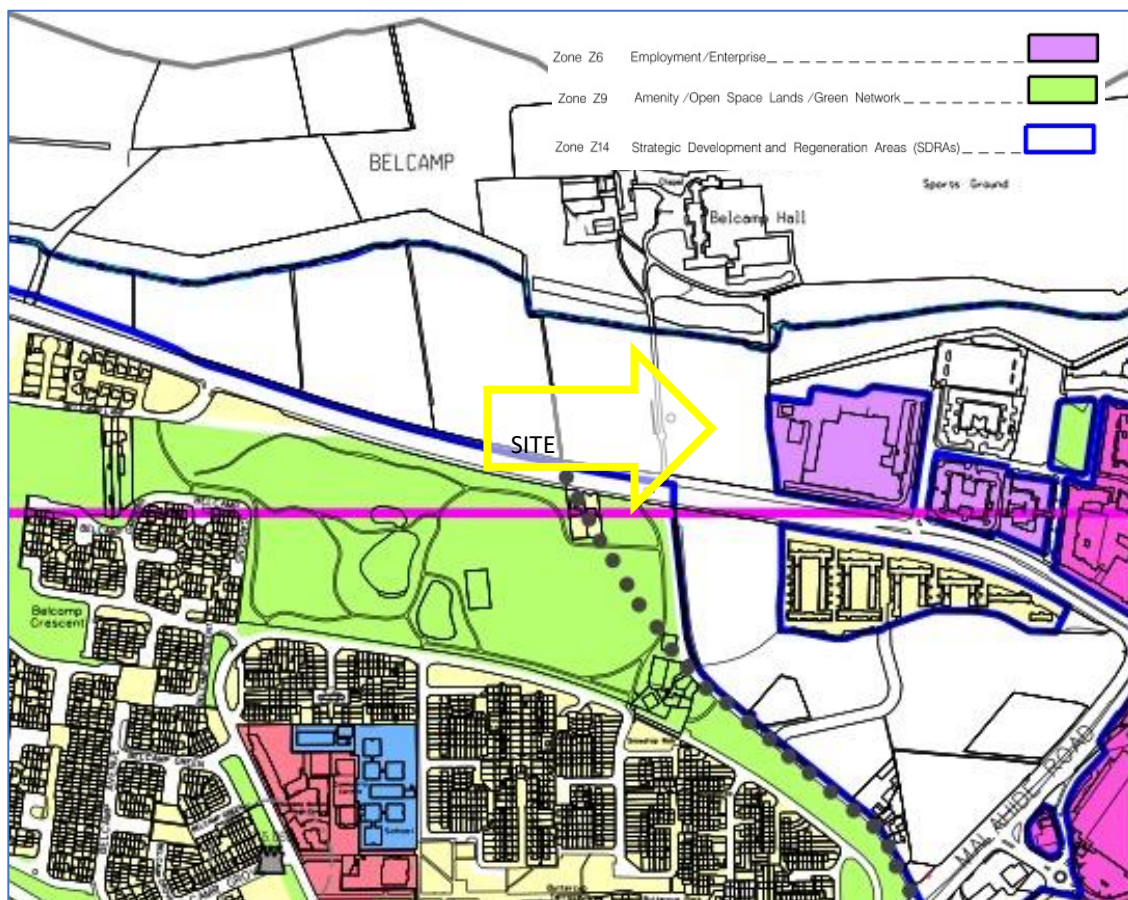


Figure 1.2 Excerpt from Dublin City Development Plan showing the land use zoning context of the site and its immediate surrounds.

The inner suburbs comprise the established suburban communities, largely, located outside of the canal belt e.g such as Phibsborough and the outer city refers to the newly developing areas on the fringe of the city administrative area including Clongriffin-Belmayne, Ashtown-Pelletstown, Park West and Cherry Orchard.

These areas have seen significant development over the past number of years for intensive higher density housing, particularly at Clongriffin-Belmayne and Ashtown-Pelletstown. Within the inner suburbs, there has also been significant investment with a number of infill and former industrial sites being regenerated for high quality housing and mixed use development.

The objectives of the policy are reflected in the policy below:

SC8 - "to support the development of the inner suburbs and outer city in accordance with the strategic development areas and corridors set out under the Dublin Metropolitan Area Strategic Plan and fully maximise opportunities for intensification of infill, brownfield and underutilised land where it aligns with existing and pipeline public transport services and enhanced walking and cycling infrastructure."

SC9 - To develop and support the hierarchy of the suburban centres, including Key Urban Villages, Urban Villages and Neighbourhood Centres, in order to:

- Support the sustainable consolidation of the city and align with the principles of the 15 minute city.
- Provide for the essential economic and community support for local neighbourhoods; and
- Promote and enhance the distinctive character and sense of place of these areas by ensuring an appropriate mix of retail and retail services.

SC10 - To develop and support the hierarchy of the suburban centres, ranging from the top tier key district centres, to district centres/urban villages and neighbourhood centres, in order to support the sustainable consolidation of the city and provide for the essential economic and community support for local neighbourhoods, including post offices and banks, where feasible, and to promote and enhance the distinctive character and sense of place of these areas.

SS11 - To promote employment and economic opportunities in the KUVs, district centres/urban villages and in neighbourhood centres in the identified innovation corridors and clusters.

SC12- To ensure that development within or affecting Dublin's villages protects their character.

General principles with regard to development in Key Urban Villages/Urban Villages are set out below. Proposals for development within these areas should be in accordance with these principles in addition to complying with the land-use zoning:

Mixed-Use: Promote an increased density of mixed-use development including residential development with diversity in unit types and tenures capable of establishing long-term integrated communities.

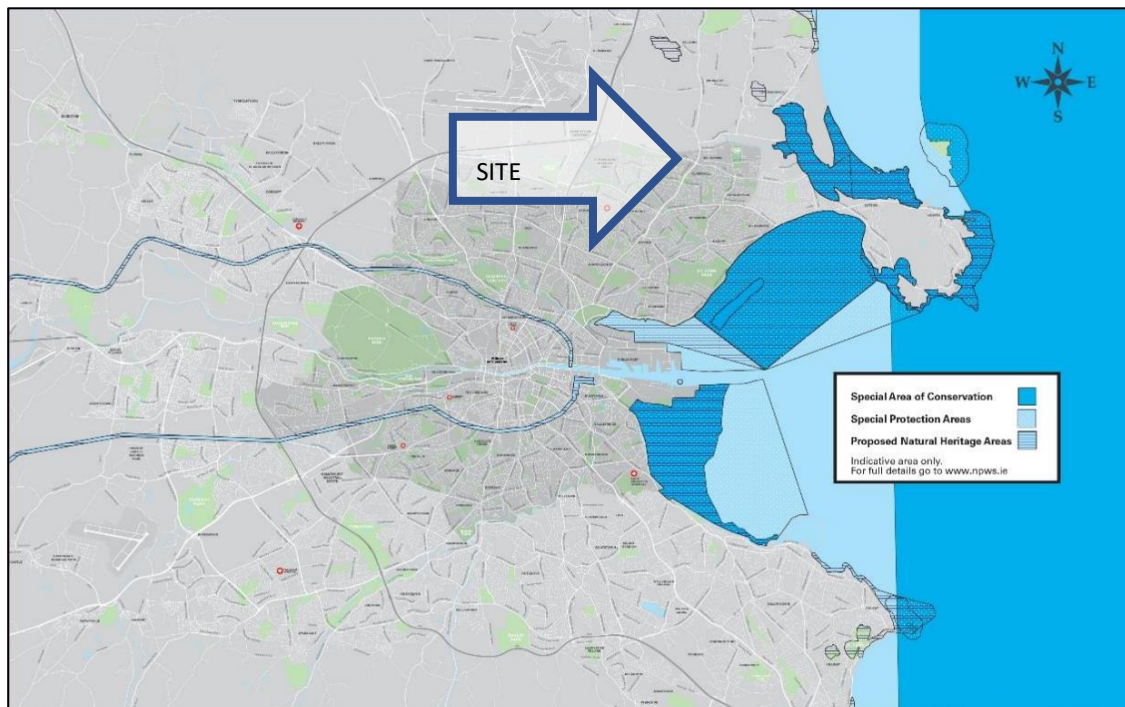


Figure 1.3 Excerpt from Dublin City Development Plan showing sensitive landscape / ecological designations.

1.3.2 Green Infrastructure

Volume 1- Section 10.5.1 of the Dublin City Development Plan deals with the role of green infrastructure within Dublin city. Green infrastructure is described here as an "interconnected network of green space that conserves natural ecosystem values and functions that also provides associated benefits to the human population. It is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services." Figure 1.2 below includes the strategic green network for Dublin City which encompasses parks, public open spaces and green corridors.

Policies and objectives outlined in the development plan that may be relevant to the proposed development are included below;

- G1: To develop a green infrastructure network through the city, thereby interconnecting strategic natural and semi-natural areas with other environmental features including green spaces, rivers, canals and other physical features in terrestrial (including coastal) and marine areas.
- G2: That any plan/project, either individually or in combination with other plans or projects that has the potential to give rise to significant effect on the integrity of any European site(s) shall be subject to an appropriate assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directives.
- G01: To integrate Green Infrastructure solutions into new developments and as part of the development of a Green Infrastructure Strategy for the city.
- G02: To apply principles of Green Infrastructure development to inform the development management process in terms of design and layout of new residential areas, business/industrial development and other significant projects.

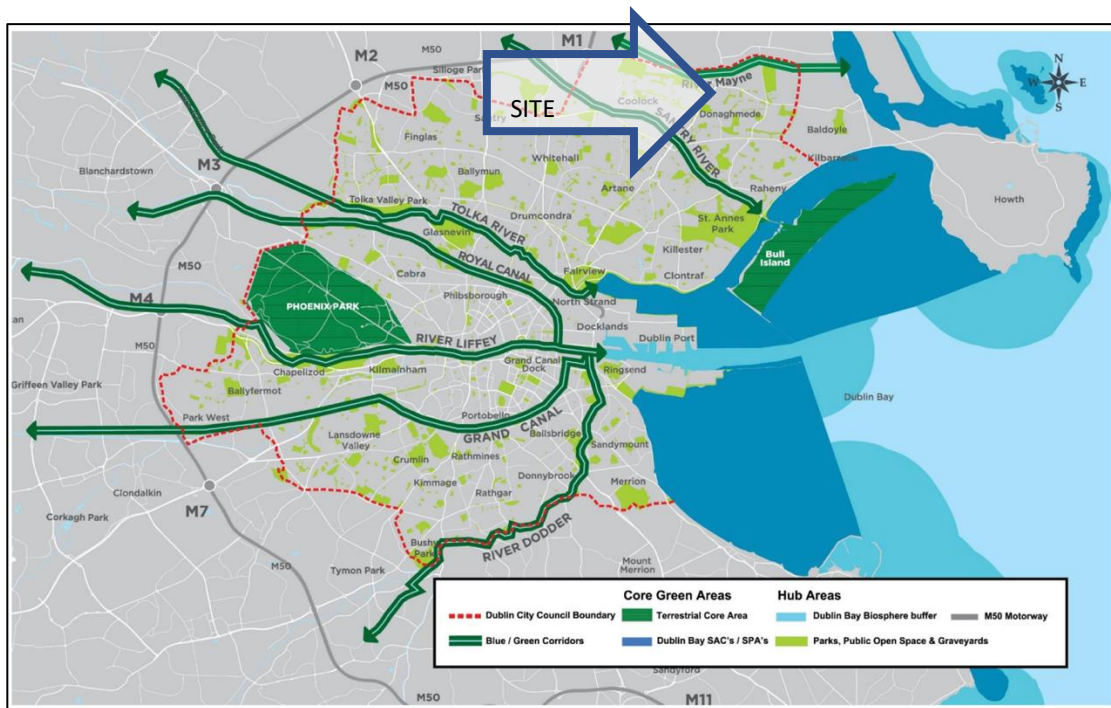


Figure 1.4 Excerpt from Dublin City County Development Plan

1.3.3 Fingal County Development Plan 2023-2029

A Landscape Character Assessment was completed for Fingal County and has been incorporated into the current County Development Plan. The County Development Plan divides Fingal into geographically specific Landscape Character Types (LCTs). The study area traverses several LCTs including LCT 3-Low Lying Character Type. The LCT3 is described as an *area characterised by a mix of pasture and arable farming on low lying land with few protected views or prospects. The Low Lying Character Type has an open character combined with large field patterns, few tree belts and low roadside hedges. The main settlements located within the area include Oldtown, Ballyboghil and Lusk and parts of Malahide and Donabate. Dublin Airport is located in this area. This low lying area is dominated by agriculture and a number of settlements. The area is categorised as having a modest value. It contains pockets of important value areas requiring particular attention such as important archaeological monuments and demesnes and also the Feltrim Hill and Santry Demesne proposed Natural Heritage Areas.*

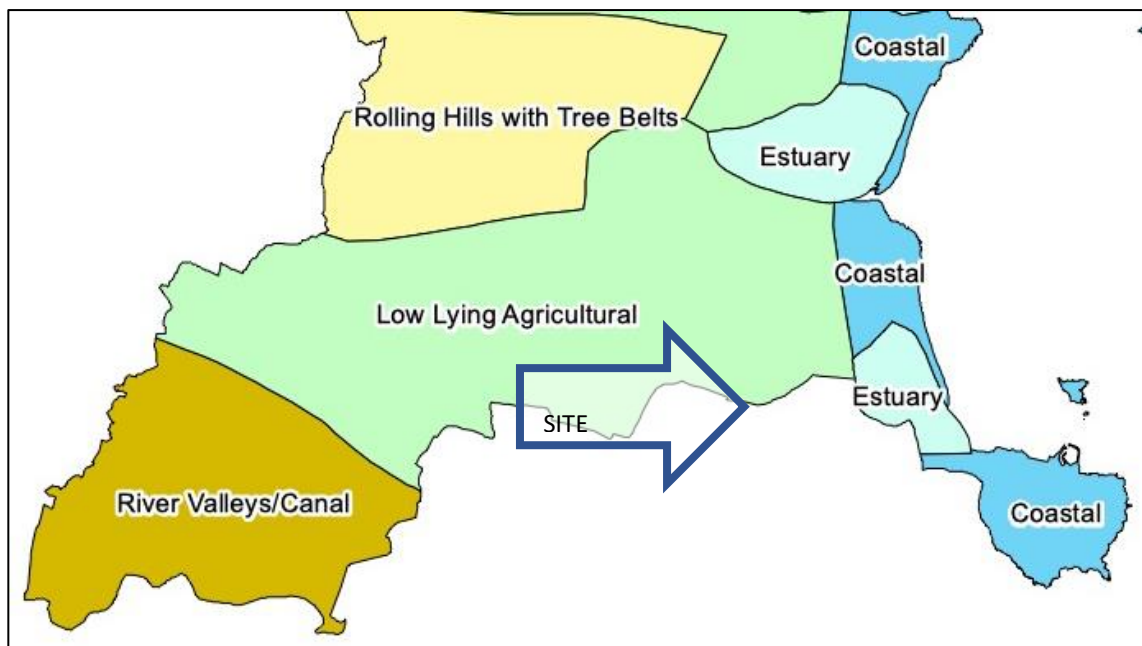


Figure 1.5 Excerpt from Fingal Landscape Character Assessment indicating Landscape Character Types

The wider study area also encompasses the LCT4 -Estuary Character Area and LCT5 - Coastal Character Area to the east, but the dominating LCT in the surrounds of the site is LCT3. Each LCT has been attributed with a landscape value, LCT3 - Low Lying Character Type is attributed with a low sensitivity. This area is described as being able to absorb a certain amount of development once the scale and forms are kept simple and surrounded by adequate screen boundaries and appropriate landscaping to reduce impact on the rural character of the surrounding roads. The protection of views and riparian corridors from inappropriate development is of paramount importance in these areas. LCT4 and LCT5 have both been attributed with a High sensitivity to development.

1.3.4 Views of Recognised Scenic Value – Fingal County Development Plan 2023-2029

Views of recognised scenic value are primarily indicated within the current development plan in the context of scenic routes/views designations, but they might also be indicated on touring maps, guidebooks, roadside rest stops or on post cards that represent the area.

There are several scenic route/view designations in the 5km radius of the site. These include:

- Coastline along R106 at Maynetown to Sutton

- Coastline at Burrow
- Coastline along R105 overlooking North Bull Island

The objectives of the Council regarding views and prospects are reflected in the policy below:

- GINHP25- Preserve views and prospects and the amenities of places and features of natural beauty or interest including those located within and outside the city.
- GINHO60-Protect views and prospects that contribute to the character of the landscape, particularly those identified in the Development Plan, from inappropriate development.

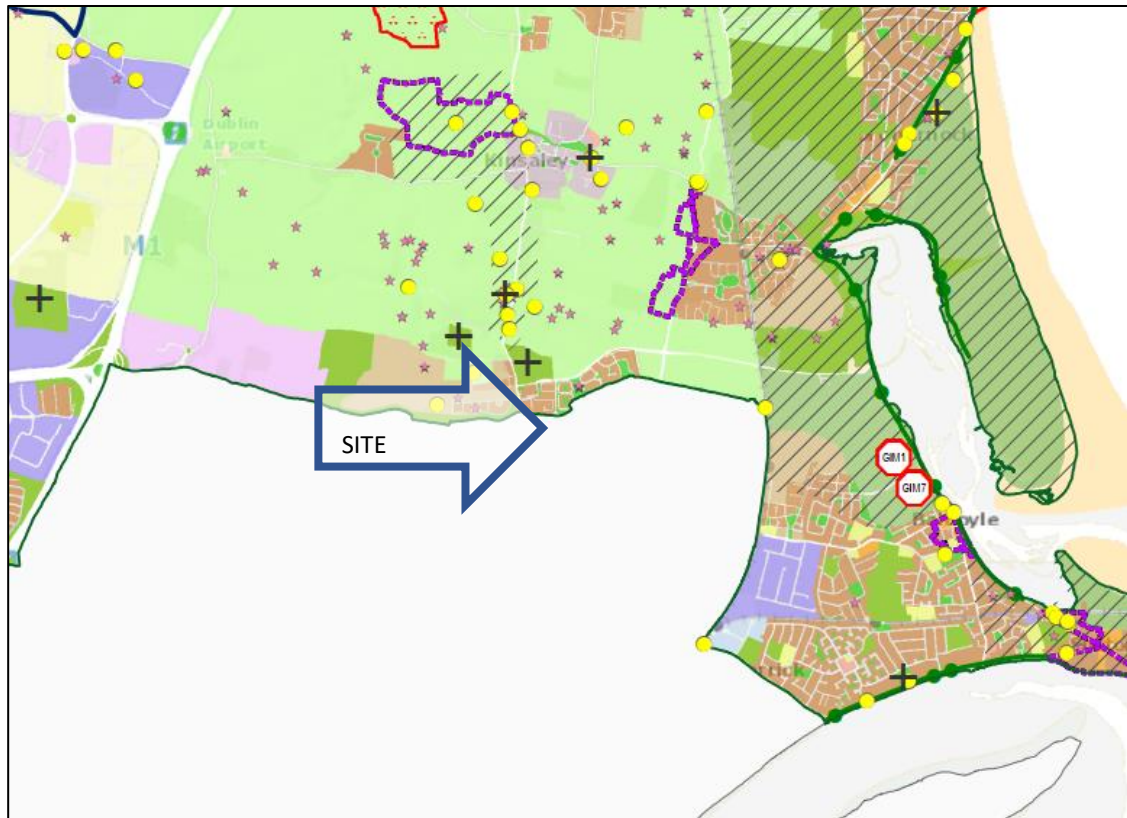


Figure 1.6 Excerpt from Fingal County Development Plan indicating designated scenic views (green dotted line)

1.4 EXISTING ENVIRONMENT

1.4.1 Landscape Baseline

The landscape baseline represents the existing landscape context and is the scenario against which any changes to the landscape brought about by the proposed development will be assessed. A description of the landscape context of the proposed application site and wider study area is provided below under the headings of landform and drainage, vegetation and land use, centres of population and houses, transport routes and public amenities and facilities. Although this description forms part of the landscape baseline, many of the landscape elements identified also relate to visual receptors i.e. places and transport routes from which viewers can potentially see the proposed development. The visual resource will be described in greater detail in 1.4.2.

1.4.1.1 *Landform and Drainage*

The proposed development is located within an area of low rolling terrain in a peri-urban area. The site is bordered by residential developments to the east and south, with large and medium agricultural fields to the north and west. The land ranges in elevation from 47m AOD to 11m AOD, gently descending west to east. The landform is impacted by the Mayne River which bisects the area directly north of the site running in an easterly direction.

In terms of watercourses, there are several prominent waterways in the area. The Mayne River runs in an easterly direction at two separate locations in the study area before converging on the eastern boundary. One of the streams runs directly north of the proposed site c. 5m from the site boundary, while the second passes farther north approximately 800m from the site at its nearest point. The Santry River briefly traverses the study area located c.1.4km south-west of the site at its nearest point. To the north there are several streams of the Sluice River traversing approximately 3km to the north running in an east west direction towards the Irish Sea.

1.4.1.2 *Vegetation and Land Use*

The study area is a transitional landscape and is clearly split between two contrasting land uses. The southern half of the area is populated by dense housing developments and commercial development, this area is also interspersed with several public parks and amenity areas. The north-western quadrant is predominantly agricultural farmland and sports pitches bordered by mature hedgerow vegetation, but there is also an existing substation facility adjacent to the Craobh Chiarans GAA pitch. There is minimal residential dwellings in this area and to the east the land transitions into a more peri-urban area with some agricultural land interspersed with large residential developments. There are also several large industrial complexes surrounding the proposed development interspersed with the heavily urban character of this North Dublin suburb. The most notable of these is the adjacent Bewleys factory. Dense networks of trees cloak the multiple rivers that traverse the study area creating several ecological corridors throughout the study area.

1.4.1.3 *Centres of Population and Housing*

There are several large centres of population within the study area and within the northern outskirts of Dublin City, these include Darndale located in the south-western quadrant of the study area, and Clarehall to the south-east. Both suburbs are sprawling with a complex network of housing estates and cul de sacs. There are also several large shopping centres including Northside shopping centre and Clarehall shopping centre, both located to the far south of the study area. The area is heavily populated with dense residential development and is an emerging presence in the area. There are several construction sites around the proposed development that have been zoned for extensive residential dwellings. Further south the land transitions into more urban areas of Dublin City and the centre of population is sprawling to the wider area of the south.

1.4.1.4 *Transport Routes*

The principal transport routes in the area is the R107 regional road and the R139 regional road. These two major routes run perpendicular to each other and converge in the central study area. The R139 passes directly south of the study area running in an east-west direction connecting the M1 and M50 motorway routes to Baldoyle. The major motorway routes of the M1 and M50 traverse the eastern section of the study area. There is also a dense network of local roads to the south of the site interspersed with regional road networks.

1.4.1.5 *Tourism, Heritage and Public Amenities*

In terms of amenity and heritage features within the area there are several amenity features. These include the recreational parks directly south of the site at Darndale. There are also several sports pitches located at different locations within the different housing estates. Father Collins Park is located directly east of the proposed development. In the eastern extent of the study area there are also several walking and cycling routes along the coast from Portmarnock to Sutton and Clontarf and North Bull Island. In terms of heritage sites Malahide Castle and Gardens is located in the northern extent of the 5km study area located approximately 3.8km from the site.

1.4.2 **Visual Baseline**

1.4.2.1 *Analysis of ZTV (Zone of Theoretic Visibility) Mapping*

Only those parts of the receiving environment that potentially afford views of the proposed development are of concern to this section of the assessment. A computer-generated Zone of Theoretical Visibility (ZTV) map has been prepared to illustrate where the proposed development is potentially visible from. The ZTV map is based solely on terrain data (bare ground visibility), and ignores features such as trees, hedges or buildings, which may screen views. Given the complex vegetation patterns within this landscape, the main value of this form of ZTV mapping is to determine those parts of the landscape from which the proposed development will definitely not be visible, due to terrain screening within the 5km study area.



Figure 1.7 Standard (bare-ground) ZTV map (Refer to Appendix A for larger scale version)

The following key points are illustrated by the 'bare-ground' ZTV map (see Figure 1.7 above):

- Due to the low-lying terrain of the area of the landscape, there is potential for comprehensive visibility throughout the majority of the study area. There are isolated areas to the extreme south and north that show no potential for visibility.
- The sensitive landscape of Bull Island also falls within the 5km radius and shows potential for comprehensive visibility. The landscape of Bull Island is a highly sensitive area and designated Special Protection Area (SPA), National Nature Reserve (NNR) and part of the Dublin Bay UNESCO Biosphere.

The most important point to make in respect of this 'bare ground' ZTV map is that it is theoretical and any vegetation and buildings that lie within the intervening landscape have the potential to screen the development to a greater extent than indicated by the bare-ground ZTV.

1.4.2.2 Identification of Viewshed Reference Points as a Basis for Assessment

Viewshed Reference Points (VRP's) are the locations used to study the visual impacts of a proposed development in detail. It is not warranted to include each and every location that provides a view of a development as this would result in an unwieldy report and make it extremely difficult to draw out the key impacts arising from the proposed development. Instead, the selected viewpoints are intended to reflect a range of different receptor types, distances and angles. The visual impact of a proposed development is assessed by Macro Works using up to 6 no. categories of receptor type as listed below:

- Key Views (from features of national or international importance) (KV);
- Designated Scenic Routes and Views (SR/SV);
- Local Community views (LCV);
- Centres of Population (CP);
- Major Routes (MR);
- Amenity and heritage features (AH).

VRP's might be relevant to more than one category and this makes them even more valid for inclusion in the assessment. The receptors that are intended to be represented by a particular VRP are listed at the beginning of each viewpoint appraisal. The Viewshed Reference Points selected in this instance are set out in the Table 1.6 and Figure 1.8 below.

Table 1.6 Outline Description of Selected Viewshed Reference Points (VRPs)

VRP No.	Location	Representative of	Direction of view
VP1	Darndale Park	AH, CP, LCV	NE
VP2	Washington Green at Belcamp	LCV, CP	SW
VP3	R139 at Belcamp	MR, CP	NE

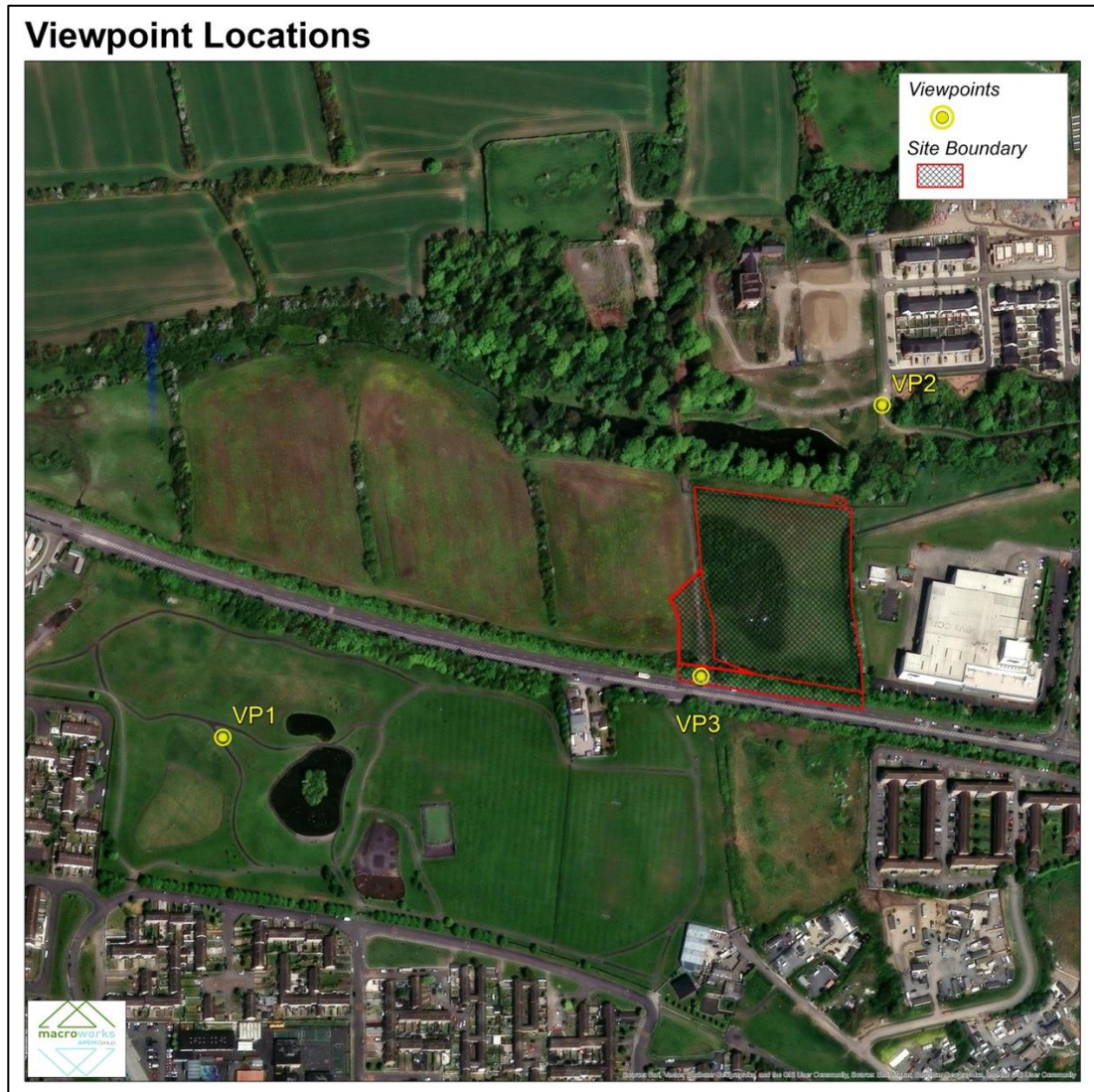


Figure 1.8 Viewpoint location map

1.5 MITIGATION AND RESTORATION MEASURES

The main mitigation by avoidance measure employed in this instance is the siting of the proposed development in an productive industrial landscape that is heavily influenced by anthropogenic activities.

In addition to mitigation by avoidance measures, retention of existing hedgerow boundaries within and around the site aids visual screening, and maintains the existing field pattern. In this respect, the proposed substation is not perceived to impose itself on the existing landscape pattern.

In addition to mitigation by avoidance measures and retention of existing hedgerows, the colour scheme of the BESS building has been chosen to help anchor the building within their surrounding landscape. The building has a staggered pattern of Goosewing Grey (RAL 080 70 05) on the upper half and Olive Green (RAL 6003) on the lower half. The light grey of the upper half helps blend the building with the sky so as not to appear incongruous and stark in the urban setting, while the Olive green will blend with the proposed mitigation planting outlined below further anchoring the building in the landscape.

In addition to retaining the existing hedgerows within around the site, it is also proposed to bolster existing perimeter and internal hedgerows with under-planting and inter-planting of whip transplants (i.e. Hedgerow Type 1 - see Figure 1.9 below) in order to ensure dense and consistent screening of the site in perpetuity. This will be undertaken where required to thicken and fill gaps in the existing hedgerow network prior to the construction phase, thus allowing for any growth in the period between a grant of planning permission and construction of the development. Advanced nursery stock in the form of 8-10cm girth trees will be used to fill any noticeable gaps and plant species will be selected to complement the existing broadleaf hedgerow species mix around the site and will be of local provenance. Where not already exceeded by existing vegetation, it is intended to manage hedgerows up to 3-4m in height. This height will be achieved by a combination of allowing lower sections of existing hedgerows to mature, filling obvious gaps with advanced nursery stock and providing an additional line of whip planting to selected hedgerows that require densification. Refer to the Landscape Mitigation Plan LD.BLMYNE-110KV-SBST_1.0 for details.

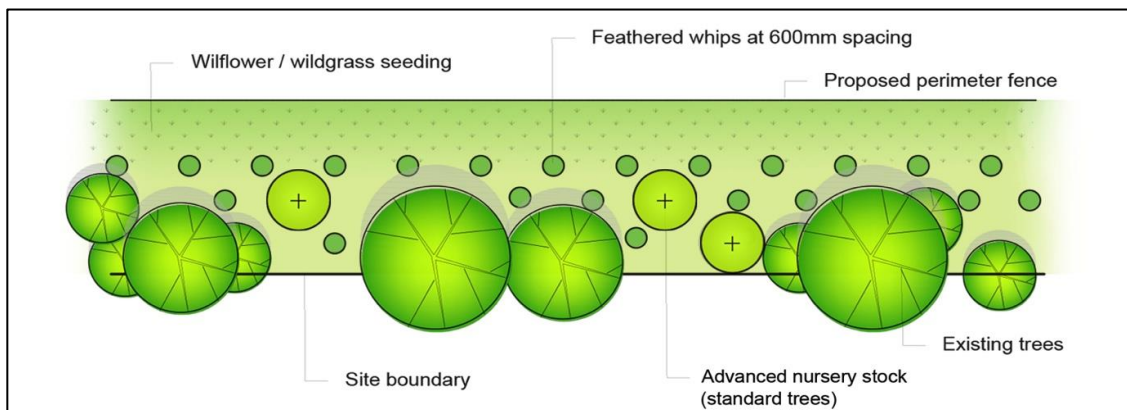


Figure 1.9 Hedgerow Type 1: indicative boundary planting detail showing the approach to inter-planting and under-planting of existing hedgerows (where consolidation is needed).

It is also proposed to plant new 'Type 2' hedgerows (Figure 1.10 refers), with whips and a high proportion of advance nursery stock trees (c.3m planted height), along the boundaries of some of the proposed parcels to further screen the proposed development from some of the nearest surrounding receptors (refer to Landscape Mitigation Plan drawing package LD.BLMYNE-110KV-SBST_1.0). All of this planting will be allowed to mature up to a maintained height of 3-4m to aid in the screening and softening of the proposed development from nearby dwellings and surrounding local and regional roads.

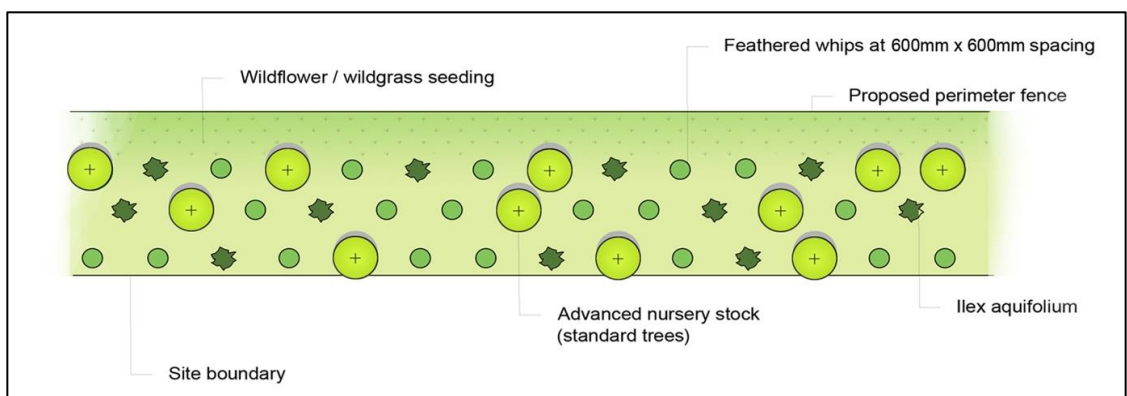


Figure 1.10 Indicative boundary planting detail showing the introduction of new boundary hedgerow TYPE 2

The combination of consolidated and proposed 3-4m high hedgerows and native thicket (c.8-10m high) will further reduce the potential for visual impacts within the surrounding area. There will be a further screening effect. Overall, a reduction in potential visibility is noted throughout the immediate study area.

Existing hedgerow field boundaries, which will have been maintained and reinforced with additional planting during the construction and operational phases, will remain intact following the restoration phase. Indeed, due to the supplementary planting proposed as part of the landscape mitigation the field boundaries are likely to be more consistent and consolidated than they are at present.

Table 1.7 Recommended Species for Planting over High Voltage Cable Trench

Common Name	Scientific Name	Maximum root Depth (cm)	Geographic Distribution	Habitat	DAFM ACRES Approved Hedge
Dogwood	Cornus sanguinea	90cm	Widespread and common as introduced species; rare in original native range	Base-rich soils	No
Guelder Rose	Viburnum opulus	65cm	Occasional in all 26 counties; absent from coastal areas	Damp neutral or base-rich soils	Yes
Holly	Ilex aquifolium	91cm	Widespread and common in all 26 counties	Wide habitat tolerance	Yes
Spindle	Euonymus europaeus	75cm	Frequent in all 26 counties	Well-drained base-rich soils	Yes

1.6 IMPACT ASSESSMENT

1.6.1 Assessment of Receptor Sensitivity – Landscape

Landscape value and sensitivity are considered in relation to a number of factors highlighted in the Guidelines for Landscape and Visual Impact Assessment 2013, which are set out below and discussed relative to the proposed development site and wider study area.

This is a robust peri-urban setting located to the north of the settlement of Darndale in the northern extent of Dublin City. The principal land uses within the study area is pastoral farmland and residential developments and the adjacent Bewleys factory highlighting the peri-urban character of the area. The landscape immediately surrounding the site is not considered highly distinctive or rare and has been zoned as an area of regeneration, with much of the distinctiveness attributed to the land east of the site along the coastline and encompassing the Dublin Bay Biosphere and North Bull island. Apart from these designated areas the majority of the area presents as a robust productive peri-urban landscape with a strong anthropogenic character influenced by major routes, industrial developments and large settlements.

In terms of landscape designation, the site encompasses multiple different landscape character types with varying sensitivities. The most relevant to the proposed development is the Inner Suburbs and Outer City zone which has been attributed by Dublin City Council. This area has undergone intensive development in the past five years and has been designated as a strategic development regeneration area (SDRA). The other most relevant designation is the Low-lying agricultural LCT within Fingal County Council jurisdiction. The Low-lying LCT is attributed with a low landscape sensitivity with isolated areas of higher sensitivity. To the east the study area traverses LCT4 and LCT5 which have both been attributed with a high landscape sensitivity. Nonetheless, at a more local level, the site and much of the study area is not considered highly susceptible to development or change, which is reinforced by the broad array of development types within its 5km radius.

In terms of visual designations, there are several scenic designations located to the east of the site along the R106 and R105 along the coastlines surrounding Portmarnock, Sutton, Clontarf and North Bull Island. However, these are a considerable distance from the proposed development, related to coastal views and unlikely to afford views of the proposed development.

Therefore, on balance of these factors and in accordance with the criteria outlined in Table 1.1, the landscape sensitivity of the site and its immediate context is deemed to be **Medium-low**, with localised areas of higher and lower sensitivity throughout the wider study area.

1.6.2 **Assessment of Receptor Sensitivity – Visual**

The study area generally presents as a robust peri-urban environment on the fringes of Dublin City Centre. Bordered to the north by large agricultural fields and dense residential housing to the south. This is a transitional landscape influenced heavily by anthropogenic activities in the form of settlements, urban centres, major route corridors and industrial development.

The land to the east of the site encompassing the coastline is synonymous with outdoor recreation and amenity which is evident by the large number of scenic route and view designations. The coastline running from Portmarnock beach south along the L21501 to the R106 near North Bull Island is designated as a scenic route. The scenic views are all associated with views overlooking the coast and Dublin Bay and oriented away from the site and its immediate surrounding landscape. Overall, scenic designations within the study area would be classified with a High-medium receptor sensitivity, but there is no potential for views of the development from such receptors due to distance and intervening vegetation and built development.

Views of the working agricultural landscape are generally pleasant in terms of its rolling pastoral aesthetic and 'green', settled working character. The network of hedgerows and vegetation throughout it contributes to some sense of naturalness and, combined with its undulating topography, generates a sense of containment in many locations. However, whilst a pleasant pastoral aesthetic is noted throughout some parts of the study area, as noted above, the surrounding local and wider landscape is also influenced by an array of anthropogenic features such as major transport routes, urban settlements, and industrial development. Overall, the sensitivity of visual receptors within the more typical working landscape context tends to be Medium-low.

Key differentials in terms of visual receptor sensitivity relate to the occupation of the visual receptor and whether views of the surrounding landscape are an inherent part of the experience. Static residential receptors are considered generally more susceptible to changes in views over those where views are experienced transiently by those travelling through the landscape, particularly on major transport routes where road infrastructure and traffic volume draw from visual amenity.

On the basis of the site-specific factors outlined above and in accordance with the general visual receptor sensitivity considerations contained in the methodology Section 1.2.5, visual receptor sensitivity judgement are provided for each representative viewpoint in the table below in section 1.6.7 below.

1.6.3 Magnitude of Landscape Effects – Construction Stage

During the construction phase there will be a far higher intensity of activity at the site than during the operational phase. This will consist of heavy vehicle movement to and from the site as well as construction machinery within the site. Indeed, whilst there will be a clear increase in HGV traffic along the surrounding local roads along the nearby R139. However, HGV traffic is commonplace on this arterial regional road and therefore will not have a notable impact on the surrounding landscape character due to the increase in traffic. Construction stage impact will also be generated by the introduction of temporary site lighting and the elements within the site will also require tower cranes, which will likely be visible above the intervening surrounding hedgerow networks in the near surrounds of the site. Construction phase impacts on the landscape are considered to be temporary and are likely to last ca.2.5 years from commencement. A summary of the construction activities within the site are included below:

- HGVs transporting material to and from the site;
- Movement of heavy earth-moving machinery and tower cranes on-site;
- Temporary storage of excavated materials and construction materials on-site;
- Gradual emergence of the proposed development, and associated works, including tower cranes;
- Security hoarding and site lighting.

The physical construction stage works will have notable effect on the local landscape, which is primarily rural or residential and influenced by the rapidly growing suburbs at the northern outskirts of Dublin City. Nonetheless, there is a high degree of intervening layers of mature vegetation located along the R139 that borders the proposed development site. This existing vegetation and adjacent industrial buildings will considerably reduce the perceived effect of the construction stage effects at receptors beyond c.500m of the site. Furthermore, construction related activity and its effects on landscape character will be short-term in duration. For these reasons, the magnitude of landscape impacts during the construction phase is deemed to be High-medium within the site and its immediate surround, however, this quickly reduces to Low beyond 500m of the site where visibility of construction activity is likely to be very limited as a result of the surrounding dense intervening vegetation and consequently the physical effects on landscape fabric are not experienced as distinct changes in landscape character.

In combination with the Medium-low landscape sensitivity designation outlined above, the significance of construction stage impacts is deemed to be **Moderate** within the site and its immediate surrounds, however, this quickly reduces to Slight and then Imperceptible within the wider study area where visibility of construction stage activities will be limited / screened. The quality of the construction stage effects will be **Negative**.

1.6.4 Magnitude of Visual Effects – Construction Stage

During construction, the main visual impacts will arise from frequent heavy vehicle movements and worker vehicles travelling to and from the site and using the site entrance. In addition, there will be construction machinery on site, which may rise above intervening vegetation and buildings and the site hoarding. There will also be stockpiles of stripped topsoil and construction materials awaiting use. However, aside from the site's immediate vicinity, a large part of this temporary activity within the site will remain screened or partially screened from view the surrounding mature layers of intervening vegetation and industrial buildings.

Furthermore, construction-related activity is temporary in nature and will cease once the development becomes fully operational. As per the construction stage landscape effects, the potential construction stage visual effects will be limited by the offset distance of the site from surrounding visual receptors in addition to the heavily screened nature of the site. Therefore, the visual impact during the construction stage is likely to be no greater than Medium in the immediate surrounds of the site and will reduce rapidly with increasing distance.

Coupled with the Medium-low visual receptor sensitivity of receptors in the near surrounds of the site, the construction stage visual impacts in the immediate vicinity of the site will be no greater than **Moderate-slight**, and will reduce considerably beyond 500m from the site, where the proposed development will be heavily screened. The quality of the construction stage effects will be **Negative**. On the basis of this assessment construction stage visual impacts are not considered to be significant.

1.6.5 Magnitude of Landscape Effects – Operational Stage

This is a productive peri-urban landscape, with intensive arable agricultural land, major transportation infrastructure, large scale industrial development and residential developments among hinterland land uses present. Therefore, it is not considered that the proposed development will noticeably detract from the integrity of landscape patterns or the productive landscape character that prevails in the area. It will further encroach on the rural hinterland land cover, but in a manner that is consistent with emerging trends and land use zoning.

The proposed substation will increase the scale, intensity and diversification of built development within the immediate surrounds. It is utilitarian in form and will generate a more industrial and less rural character, however, this is not unfamiliar in the study area particularly to the south as the land transitions into Dublin City. This area is characterised by urban industrial and transport development as well as considerable electrical infrastructure. For these reasons, the magnitude of landscape effect is deemed to be Medium-low within the central study area (<500m), thereafter reducing to Low and Negligible within increasing distance as the proposed development becomes a perceptually smaller component of a broader peri-urban landscape.

With reference to the significance matrix (Table 1.4) above, the **Medium-low** landscape sensitivity judgement attributed to the study area, coupled with a **Medium** magnitude of landscape impact in the immediate vicinity (<500m) of the proposed development is considered to result in an overall significance of no greater than **Moderate**, with the remainder of the 5km radius study area likely to experience **Slight** or **Imperceptible** landscape impacts. The quality of the operational stage landscape effects will be **Negative**. On the basis of this assessment operational stage landscape impacts are not considered to be significant.

1.6.6 Magnitude of Visual Effects – Operational Stage

The assessment of visual impacts at each of the selected viewpoints is aided by photomontages of the proposed development. Photomontages are a 'photo-real' depiction of the scheme within the view utilising a rendered three-dimensional model of the development, which has been geo-referenced to allow accurate placement and scale. For each viewpoint, the following images have been produced:

1. Existing view;
2. Outline view (yellow outline showing the extent of the proposed solar farm location including all associated overground works overlaid on the photograph);
3. Montage view
4. Montage view with mitigation established.



VP NO.	EXISTING VIEW	VP SENSITIVITY	MAGNITUDE OF VISUAL EFFECT (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT
VP1	<p>Darndale Park: This is a view afforded from the open expanse of the parkland in Darndale. The view is broad and open overlooking a small man-made lake. The view is contained in the background by dense mature tree line to the northeast and large industrial buildings to the east. The views are contained by the dense trees not allowing for any views of the landscape beyond.</p>	Medium-low	<p>No views, partial or otherwise, are afforded from this viewpoint location. Therefore, the magnitude of effect is negligible by default.</p>	Imperceptible / Neutral / Medium-term	Imperceptible / Neutral / Long-term
VP2	<p>Washington Green at Belcamp: This is a slightly elevated view afforded from a walkway adjacent to the housing estate at Washington Green to represent local community views. Partial views of the surrounding agricultural land are afforded through gaps in the mature tree line that dominates the foreground.</p>	Medium-low	<p>From this viewpoint a noticeable but heavily veiled view of the proposed substation can be seen through the gaps in the tree line. This would not occur in summer months when the trees are in leaf. The substation consists of a series of substantial sized blocky structures and there is also a clutter of external switch gear lightning poles end mast and a perimeter security fence. It is a prominent feature that brings a utilitarian industrial character to the otherwise rural/residential scene, but without interrupting any key aspects of visual amenity. Prior to mitigation, the magnitude of visual effect is deemed to be Medium-low, and the quality of the effect is negative.</p> <p>Once mitigation screen planting has become established, there will still be noticeable views of</p>	Moderate-slight/Negative Medium-term	Slight/Negative/ Long-term



VP NO.	EXISTING VIEW	VP SENSITIVITY	MAGNITUDE OF VISUAL EFFECT (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT
			the substation during winter months, however the development will appear slightly more integrated in the landscape with the lower portion partially screened. The magnitude of visual impact is deemed to be Low.		
VP3	<p>R139 at Belcamp: This is a view afforded from the R139 regional road. This is a busy regional road directly to the south of the site. The view is contained by the large block wall and sporadic mature vegetation in the foreground. Partial views of the landscape beyond are afforded through the small gaps in the hedgerow vegetation.</p>	Medium-low	<p>From this viewpoint location clear views of the upper profile of the main GIS substation structure are afforded over the surrounding walls and gaps in hedgerow vegetation. Views of the substation will be relatively fleeting from the R139 and will be in the immediate context of the adjacent Bewleys factory. The magnitude of visual effect is deemed to be Medium-low.</p> <p>Once mitigation screen planting has become established, the proposed substation facility will still be visible but will appear more anchored in the landscape with only partial views of the substation remaining above the proposed screen planting. The magnitude of visual impact is deemed to reduce to Low</p>	<p>Moderate-slight /Negative/ Medium-term</p>	<p>Slight/Negative/ Long-term</p>

1.6.7 **Cumulative Impact Assessment**

The landscape and visual assessment contained above has taken account of other existing residential and industrial development in the vicinity of the site as part of the baseline for the main assessment.

In terms of permitted developments of scale in the immediate vicinity, the Greater Dublin Drainage (GDD) scheme has just been approved and its substantial scale Wastewater Treatment Plant will be located a short distance to the northwest at Clonsaugh. This will have an industrial character similar to the proposed substation but of a much larger scale. Together these developments will contribute to the emerging trend of north Dublin City fringe farmland being enveloped by strategic built development, albeit the contribution of the proposed substation to that trend is minor compared to the GDD scheme. Furthermore, the proposed substation is contained in a strategic development zone where development of a peri-urban nature is both planned and expected.

For the reasons outlined above, the magnitude of cumulative impact is deemed to be Low and not significant.

1.6.8 **Monitoring**

1.6.8.1 *Construction Phase*

Landscape tender drawings and specifications will be produced to ensure that the landscape work is implemented in accordance with best practice. This document will include tree work procedures, soil handling, planting and maintenance. The contract works will be supervised by a suitably qualified landscape architect.

The planting works will be undertaken in the next available planting season after completion of the main civil engineering and building work.

All tree protection requirements will be installed on commencement of the development and removed on a phased basis as stages of the development are completed.

1.6.8.2 *Operational Phase*

This will consist of weed control, replacement planting, pruning etc. All landscape works will be in an establishment phase for the initial three years from planting. All works will be monitored on an ongoing basis to ensure the quality of the development is maintained.

1.7 **CONCLUSIONS**

In terms of Landscape Impacts, the proposed substation will have notable physical impacts on the land cover of the site during the construction stage. However, in terms of salient consideration of effects on landscape character during the operational stage, there will be an increase the scale, intensity and diversification of built development within and immediately around the site. It is utilitarian in form and will generate a more industrial and less rural character, however, this is not unfamiliar in the peri-urban surrounds of Dublin City's northern fringe. This area is characterised by urban industrial and transport development as well as considerable electrical infrastructure. For these reasons, the magnitude of landscape effect is deemed to be Medium-low within the immediate vicinity of the site (<500m), thereafter reducing to Low and Negligible within increasing distance as the proposed development becomes a perceptually smaller component of a broader peri-urban landscape.

In terms of the significance of landscape effects, the Medium-low sensitivity of the receiving landscape within the site coupled with the Medium magnitude of effects on landscape character in the immediate vicinity of the site is deemed to result in a Moderate/Negative significance and quality of effect. Due to diminishing magnitude of impacts with increasing distance/context, the significance of landscape effect will reduce to Slight and Imperceptible in the wider portions of the study area, even within the more sensitive coastline setting to the east, as the substation will have no material influence on coastal landscape character.

Visual Impacts were assessed at no. 3 viewpoint locations, representing a range of viewing angles, distances, and contexts but within the immediate area where potential for visibility is greatest. The sensitivity of each of these visual receptors is deemed Medium-low which reflects the generally robust utilitarian nature of this peri-urban landscape context. The significance of visual effect experienced at VP2 prior to mitigation is deemed to be Moderate-slight due to the proposed substation being visible at short distance, albeit through a dense veil of winter trees. This will reduce to Slight once mitigation screen planting partially obscured and softens the view of the proposed substation. Viewpoint VP3 also experiences a pre-mitigation visual effect of Moderate slight and a residual visual effect of Slight due to the fleeting views of the proposed development afforded over the stone wall bordering the regional road R139. The significance of effect at the remaining VP1 is deemed to be Imperceptible due to no views being afforded of the proposed development from Darndale Park.

1.7.1 **Overall Significance of Effect**

Based on the landscape and visual effect judgements provided throughout this LVIA, the proposed Belmayne 110kv substation comprising the substation and grid connection, underground cabling and other ancillary development is not considered to give rise to any significant residual effect.

1.8 REFERENCES

- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) publication entitled Guidelines for Landscape and Visual Impact Assessment, 2013 (GLVIA3);
- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022); and
- 'Photography and Photomontage in Landscape and Visual Impact Assessment', Landscape Institute Technical Guidance Note 06/2019.