Chapter 15
Landscape and Visual

CONTENTS

15. LANDSCAPE & VISUAL AMENITY

15.1 Introduction

This chapter presents the assessment of the Construction and Operational Phases of the proposed DART+ Coastal North project ("the Proposed Development") on the landscape and visual amenity. This chapter has been prepared having regard the draft Railway Order and to other chapters in Volume 2 of this EIAR, and in particular the following:

- Chapter 4 (Description of the Proposed Development);
- Chapter 5 (Construction Strategy);
- Chapter 7: (Population);
- Chapter 8: (Biodiversity);
- Chapter 16 (Material Assets: Agricultural Properties);
- Chapter 17 (Material Assets: Non-Agricultural Properties);
- Chapter 18 (Material Assets: Utilities);
- Chapter 20 (Archaeology and Cultural Heritage); and
- Chapter 21 (Architectural Heritage).

This chapter sets out the relevant legislation, policy and guidance in Section 15.2, the methodology used for the assessment in Section 15.3, a description of the receiving environment in Section 15.4, and a description of the potential impacts of the Proposed Development in Section 15.5. Section 15.6 sets out the mitigation measures proposed to avoid, reduce and / or mitigate impacts identified. Details of residual impacts are described in Section 15.7 and cumulative impacts are discussed in Section 15.8. A list of reference material used to compile this chapter is provided in Section 15.9.

15.2 Legislation, Policy and Guidance

15.2.1 Legislation

This assessment of the likely construction and operational stages of the Proposed Development on the landscape and visual amenity has been undertaken in accordance *inter alia* with Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment of the European Parliament and of the Council of 16 April 2014 ("the EIA Directive"), the Transport (Railway Infrastructure) Act 2001 (as amended and substituted) ("the 2001 Act"), the European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 (S.I. No. 743/2021) which give further effect to transposition of the EIA Directive by amending the 2001 Act and the European Landscape Convention 2000. Where appropriate, regard has been had to the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (S.I. 600 of 2001) (as amended).

15.2.2 Policy

The following policy documents were reviewed.

- Dublin City Council (DCC), Dublin City Development Plan 2022-2028 (DCC 2022);
- Fingal County Council (FCC), Fingal Development Plan 2023-2029 (FCC 2023);
- Meath County Council (MCC), Meath County Development Plan (MCC 2021-2027);
- Louth County Council (LCC) Louth County Development Plan 2021-2027 (LCC 2021);
- Project Ireland 2040 - National Development Plan 2018-2027 (DHLGH 2018);
- Project Ireland 2040 - The National Planning Framework (DHLGH 2020);
- Eastern and Midlands Regional Spatial and Economic Strategy 2019-2031 (EMRA 2019);
- The Forest of Fingal – A Tree Strategy for Fingal (FCC 2022);
- Dublin City Tree Strategy 2016-2020 (DCC 2016b); and
- Dublin City Parks Strategy 2019-2022 (DCC 2019).

15.2.3 Guidance

The following guidance was of relevance to the assessment:

- Environmental Protection Agency (EPA) Guidelines on the Information to be contained in Environmental Impact Assessment Reports ("the EPA Guidelines") (EPA 2022);
- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) Guidelines for Landscape and Visual Impact Assessment ('GLVIA') 3rd edition (Landscape Institute and IEMA 2013);
- Landscape Institute Technical Information Note 05/2017 (Revised 2018) on Townscape Character Assessment ('TCA') (Landscape Institute 2018);
- Department of Housing, Planning and Local Government (DHPLG) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment ('GEIA') (DHPLG 2018);
- Landscape Institute Technical Guidance Note 06/2019 on Visual Representation of Development Proposals (hereafter referred to as the VRDP) (Landscape Institute 2019).

While the EPA Guidelines provide a general methodology, impact ratings and assessment structure applicable across all environmental assessments, the GLVIA provides specific guidance for landscape and visual impact assessments. The TCA is a resource for the application of landscape character assessment to townscapes. Therefore, in this chapter, a combination of the approaches outlined in the EPA Guidelines and in the GLVIA, supported by the TCA and the professional experience and expertise of the assessor, is utilised in the landscape and visual assessment.

15.3 Methodology

15.3.1 Study Area

The primary study area is a boundary-to-boundary rail corridor located along the Proposed Development, which incorporates the immediately adjoining landscapes and properties, including open spaces, parks, gardens, and other land use areas, together with amenity, landscape / townscape and visual planning considerations. This study area also extends, where required, to incorporate wider viewpoints to the Proposed Development (e.g. views from coastal areas).

15.3.2 Survey Methodology

Survey of the receiving environment involves both desk and field studies. Data collection and collation is based on initial desk studies, supported by site walkovers and augmented by further specific localised reviews along the corridor of the Proposed Development. The survey also involves the selection and preparation of verified photomontages of the Proposed Development, which are presented in Volume 3B of this EIAR.

Desk studies, which allow for identification of designated and potential significant / sensitive landscape and visual areas, involved a review of:

- Dublin City Development Plan 2022-2028 (DCC 2022);
- Fingal Development Plan 2023-2029 (FCC 2022);
- Kildare Development Plan 2023-2029 (KCC 2022);
- Meath Development Plan 2021-2027 (MCC 2021);
- Louth County Development Plan 2021-2027 (LCC 2021);
- Dublin City Tree Strategy 2016-2020 (DCC 2016b);
- Dublin City Parks Strategy 2019-2022 (DCC 2019);
- Historical and current mapping and aerial photography (e.g. Ordnance Survey Ireland (OSI), Google Earth, EPA Maps, Google Maps) of the existing environment;
- Mapping / drawings of the Proposed Development including information on expected vegetation removal;
- Other reports and documents relating to the baseline environment, including other chapters of this EIAR and in particular Chapter 4 (Description of the Proposed Development); Chapter 5 (Construction Strategy); Chapter 8 (Biodiversity); Chapter 20 (Archaeological and Cultural Heritage) and Chapter 21 (Architectural Heritage); and
- Review of baseline information and impact assessment reports.

Site-based studies, which allow for verification of desk study findings and for analysis of current conditions in the baseline environment, involved:

- Further field surveys to verify conditions at specific areas along the route of the Proposed Development; and
- Selection of locations for verified photomontages of the Proposed Development.

The information collected during the desk study and field surveys has been collated and presented in Section 15.4 of this Chapter.

Baseline landscape and visual features and designations are presented on Figure 15.1 in Volume 3A of this EIAR. A full list of Architectural Heritage Features are described in Section 21.5 in Chapter 21 (Architectural Heritage) in Volume 2 of the EIAR. Each feature is given a corresponding BH number which can be identified on Figure 21.1 in Volume 3A of this EIAR.

15.3.3 Assessment Methodology

Landscape and visual considerations in current guidance requires that effects on landscape be assessed separately from the effects on views / visual amenity, although it is accepted that the two subjects are naturally connected.

Landscape for the purposes of the EIA Directive is an overarching term relating to both rural and urban areas. The term 'townscape' is used where it relates to urban or built-up landscapes, such as those relevant to the eastern extents of the Proposed Development.

Assessment of potential landscape / townscape effects involves:

- Classifying the sensitivity of the baseline environment of the landscape / townscape resource; and
- Describing and classifying the magnitude of change in the landscape / townscape resulting from the Proposed Development.

These factors are combined to provide a classification of significance of impacts of the Proposed Development.

15.3.3.1 Methodology for Assessment of Landscape / Townscape Sensitivity

The sensitivity of the landscape / townscape is a function of its existing land use, patterns and scale, enclosure, visual characteristics and value. The nature and scale of the Proposed Development is taken into account, as are trends of change and the relevant policy framework. Five categories are used to classify sensitivity, as set out in Table 15-1.

Table 15-1 Landscape / Townscape Sensitivity

Sensitivity	Description
Very High	Areas where the landscape / townscape exhibits very strong, positive character with valued elements, features and characteristics that combine to give an experience of unity, richness and harmony. The landscape / townscape character is such that its capacity to accommodate change is very low. These attributes are recognised in policy or designation as being of national or international value and the principal management objective for the area is conservation of existing character.
High	Areas where the landscape / townscape exhibits strong, positive character with valued elements, features and characteristics. The landscape / townscape character is such that it has limited or low capacity to accommodate change. These attributes are recognised in policy or designations as being of regional or county value and the principal management objective for the area is protection of existing character.
Medium	Areas where the landscape / townscape has certain valued elements, features or characteristics but where the character is mixed or not particularly strong, or has evidence of alteration, degradation or erosion of elements and characteristics. The landscape / townscape character is such that there is some capacity for change. These areas may or may not be recognised in policy at local level and the principal management objective may be to consolidate landscape / townscape character or facilitate appropriate change.
Low	Areas where the landscape / townscape has few valued elements, features or characteristics and the character is weak. The character is such that it has capacity for change and where development will have a neutral change or will have a positive change. Such landscapes / townscapes are generally unrecognised in policy and the principal management objective may be to facilitate change through development, repair, restoration or enhancement.
Negligible	Areas where the landscape / townscape exhibits negative character, with no valued elements, features or characteristics. The character is such that its capacity to accommodate change is high and where development will have a positive change. Such landscapes / townscapes include derelict industrial lands, as well as sites or areas that are designated for a particular type of development.

Sensitivity	Description
	The principal management objective for the area is to facilitate change in the landscape / townscape through development, repair or restoration.

15.3.3.1.1 Methodology for Assessment of Magnitude of Change in the Landscape / Townscape

Magnitude of change is a factor of the scale, extent and degree of change imposed on the landscape / townscape by the Proposed Development, with reference to its key elements, features and characteristics and the affected surrounding character areas (collectively termed 'landscape' or 'townscape receptors'). Five categories are used to classify magnitude of change, as set out in Table 15-2.

Table 15-2 Magnitude of Landscape / Townscape Change

Sensitivity	Description
Very High	Change that is large in extent, resulting in the loss of or major alteration to key elements, features or characteristics of the landscape / townscape, and / or introduction of large elements considered totally uncharacteristic in the context. Such development results in fundamental change in the character of landscape / townscape.
High	Change that is moderate to large in extent, resulting in major alteration to key elements, features or characteristics of the landscape / townscape, and / or introduction of large elements considered uncharacteristic in the context. Such development results in change to the character of landscape / townscape.
Medium	Change that is moderate in extent, resulting in partial loss or alteration to key elements, features or characteristics of the landscape / townscape, and / or introduction of elements that may be prominent but not necessarily uncharacteristic in the context. Such development results in modest change to the character of landscape / townscape.
Low	Change that is modest or limited in scale, resulting in minor alteration to key elements, features or characteristics of the landscape / townscape, and / or introduction of elements that are characteristic in the context. Such development results in minor change to the character of landscape / townscape.
Negligible	Change that is limited in scale, resulting in no alteration to key elements features or characteristics of the landscape / townscape, and / or introduction of elements that are characteristic of the context. Such development results in no change to landscape / townscape character.

15.3.3.1.2 Methodology for Assessment of Significance of Effects

To classify the significance of impacts, the magnitude of change is measured against the sensitivity of the landscape / townscape based on Figure 3.5 in the EPA Guidelines (EPA 2017), as adapted and presented in Image 15-1. Determining the significance of impacts that are rational and justifiable is also based on the professional judgement, expertise and experience of the author / assessor.

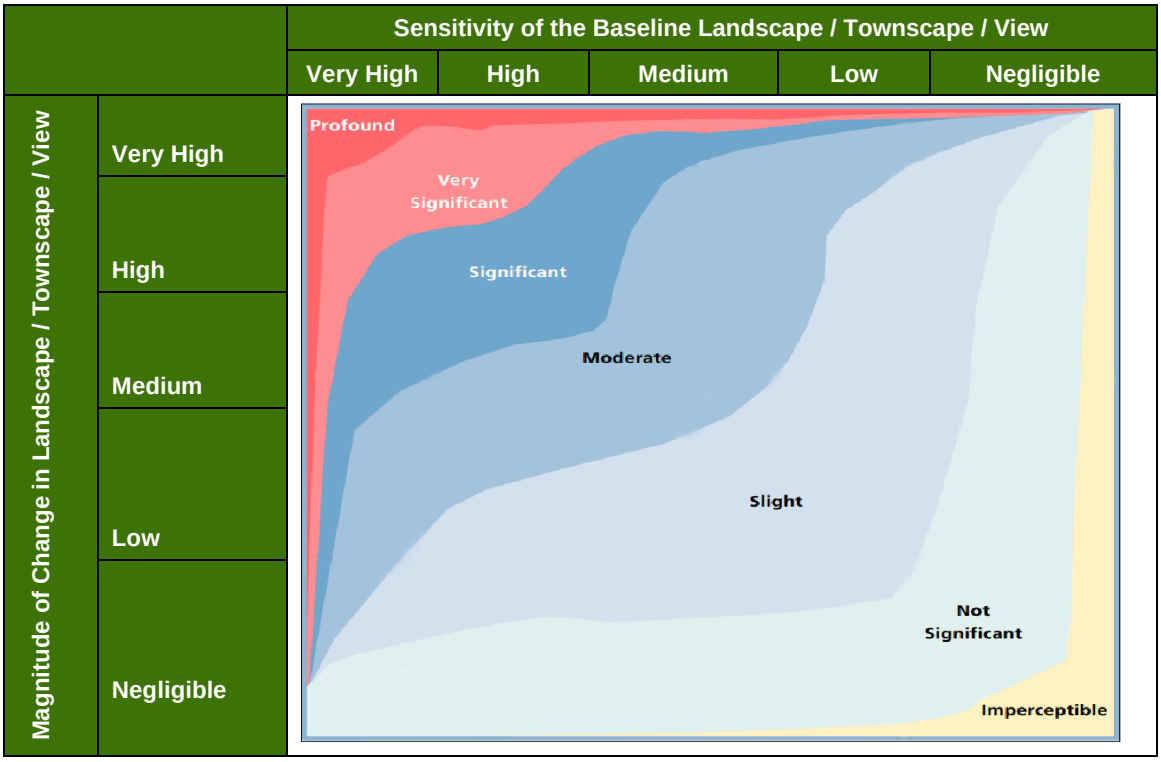

Image 15-1 Guide to Classification of Significance of Landscape / Townscape and Visual Impacts

15.3.3.1.3 Quality, Duration of Landscape / Townscape and Visual Effects

Consideration of the following are as described in Table 3.3 of the EPA Guidelines (EPA 2017).

- Quality (i.e. positive, neutral, negative); and
- Duration (i.e. temporary (lasting up to 1 year); Short-term (lasting 1 to 7 years); medium-term (lasting 7 to 15 years); Long-term (lasting 15 to 60 years); or permanent (lasting over 60 years)).

An impact assessed as being significant may also be either positive, neutral or negative. For example, the introduction of a new structure may represent a significant change in the environment. However, the quality of change may be positive: in that it enhances the receiving environment; may be negative: in that it detracts from the receiving environment; or it may be neutral: in that despite the significant change, any negative and positive aspects are balanced or cancelled. This potential for significant neutral impacts to arise is particularly noted over time, where a development or structure is increasingly accepted as part of the receiving landscape / townscape / view despite the significance of change in the receiving environment.

15.1.1.1 Views and Visual Amenity

Visual impact assessment is concerned with changes that arise in the composition of available views and the overall effect on the visual amenity of an area. This includes effects on protected and designated views as well as on the typical range of views available from within the public realm or private areas and properties.

15.1.1.2 Methodology for Assessment of Visual Effects

Assessment of visual effects involves identifying key / representative viewpoints in the baseline environment of the Proposed Development, and for each one of these:

- Classifying the viewpoint sensitivity; and
- Classifying the magnitude of change in the view.

These factors are combined to provide a classification of significance of the impacts of the Proposed Development on each viewpoint.

15.3.3.1.4 Methodology for Assessment of Sensitivity of the Viewpoint / Visual Receptor.

Viewpoint sensitivity is a function of two main factors:

- Susceptibility of the visual receptor to change. The duration and frequency of exposure informs the susceptibility; a greater length of time or more frequent experience of views results in a receptor being more susceptible to changes in views. Visual receptors most susceptible to change include residents, people engaged in outdoor recreation focused on the landscape (e.g. park / walk users), or where the quality of the activity is dependent on the appreciation of views over the landscape. Visual receptors less susceptible to change include road or rail users, views from rail and other transport routes (unless on recognised scenic routes), people engaged in outdoor recreation where the surrounding landscape does not influence the experience, and people in their place of work or shopping.
- Value attached to the view. This depends to a large extent on the subjective opinion of the visual receptor but also on factors such as policy and designations which indicate a shared social value (e.g. scenic routes, preserved views), or the view or setting being associated with a heritage asset, visitor attraction, place of congregation, or having some other cultural status.

Five categories are used to classify a viewpoint's sensitivity, as set out in Table 15-3.

Table 15-3 Categories of Viewpoint Sensitivity

Sensitivity	Description
Very High	Views or viewpoints (views towards or from a landscape / townscape feature or area) that are recognised in policy or otherwise designated as being of national value. Designed views which may be from or be directed towards a recognised heritage asset or other important designated feature, where a key management objective for the view is its protection from change. Visual receptors using national trails or nationally recognised public rights of way. Views recognised in art or literature may also be of very high value. The principal management objective for the view is its protection from change.
High	Viewpoints or views that are recognised in policy or otherwise designated as being of value, or viewpoints that are highly valued by people that experience them regularly (e.g. views from houses or outdoor recreation amenities focused on the landscape / townscape). The composition, character and quality of the view may be such that it is likely to have high value for people experiencing it and is consequently vulnerable to changes which may lower this value. The principal management objective for the view is its protection from change that reduces visual amenity.
Medium	Views that may not have features or characteristics that are of particular value, but have no major detracting elements, and which thus provide some visual amenity. These views may have capacity for appropriate change and the principal management objective is to facilitate change to the composition that does not detract from visual amenity, or which enhances it. Visual receptors may include people with a moderate susceptibility to change engaged in outdoor sports which do not rely on an appreciation of the surrounding landscape / townscape, or road users on minor routes passing through areas of valued landscape / townscape character.
Low	Views that have no features of appreciable value, and / or where the composition and character are such that there is little appreciable value in the view. Visual receptors include people involved in activities with no particular focus on the landscape. For such views the principal management objective is to facilitate change that does not detract from visual amenity or enhances it.
Negligible	Views that have no features of appreciable value or the composition and character may be unsightly (e.g. in derelict landscapes). For such views the principal management objective is to facilitate change that repairs, restores or enhances visual amenity.

15.3.3.1.5 Methodology for Assessment of Magnitude of Change in the View / Viewpoint

Classification of the magnitude of change takes into account the size or scale of the intrusion of the Proposed Development into the view (relative to the other elements and features in the composition (i.e. its relative visual dominance); the degree to which it contrasts or integrates with the other elements and the general character of the view; and the way in which the change will be experienced (e.g. in full view, partial or peripheral view, or in glimpses). It also takes into account the geographical extent of the change, as well as the duration and reversibility of the visual effects. Five categories are used to classify magnitude of visual change to a view, as set out in Table 15-4.

Table 15-4 Categories of Magnitude of Visual Change

Magnitude	Description
Very High	Complete or full intrusion of the development in the view, or partial intrusion that obstructs valued features or characteristics, or introduction of elements that are completely out of character in the context, to the extent that the development becomes dominant in the composition and defines the character of the view and the visual amenity.
High	Extensive intrusion of the development in the view, or partial intrusion that obstructs valued features, or introduction of elements that may be considered uncharacteristic in the context, to the extent that the development becomes co-dominant with other elements in the composition and affects the character of the view and the visual amenity.
Medium	Partial intrusion of the development in the view, or introduction of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity.
Low	Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity.
Negligible	Barely discernible intrusion of the development into the view, or introduction of elements that are characteristic in the context, resulting in slight change to the composition of the view and no change in visual amenity.

15.3.3.1.6 Methodology for Assessment of Significance of Visual Effects

As with landscape / townscape effects, classification of the significance of visual effects, involves measurement between the magnitude of change to the view and the sensitivity of the view / viewpoint, as set out in Image 15-1.Quality of Landscape / Townscape and Visual Effects.

In addition to predicting the significance of the impacts, EIA methodology (EPA, 2017) requires that the quality of the impacts be classified as positive, neutral or negative. For some degree for landscape / townscape effects, but particularly for visual effects, this will involve an element of subjectivity. This is because landscape / townscape and visual amenity are perceived by people and are therefore subject to variations in the attitude and values, including aesthetic preferences of the receptor. One person's attitude to the Proposed Development may differ from another person's and thus their response to the effects on the landscape / townscape or a view may vary. The classification of quality of landscape / townscape and visual effects seeks to take these variables into account and provides for a rational and robust assessment.

15.3.3.1.7 Presentation of Construction Effects

As required by the EIA Directive, the assessment should outline the temporary, Short-term, medium-term and Long-term, effects arising from the Proposed Development. Construction effects are described based on a cautionary principle; where effects are expected to be temporary (under 1 year in duration) but have reasonable potential to extend beyond this duration, due to unplanned schedule slippage, effects are described as Temporary / Short-term. Also, it should be noted, in some cases, where a townscape section is described as experiencing a Temporary / Short-term effect, this can result from sequential construction along the length of the section, and localised streetscape / visual receptors within that section may only experience temporary effects.

15.3.3.1.8 Presentation of Predicted Operational Effects

To illustrate the effects resulting from established mitigation measures, predicted Operational Phase effects are presented for the beginning of the Long-term (at 15 years Post-Construction Phase) in Table 15-9. Predicted residual Operational Phase effects which are 'significant' or higher, at 15 years Post-Construction Phase, are also outlined in Table 15-11.

15.3.3.1.9 Photomontage - Methodology

The methodology for the preparation of photomontages has had regard to the VRDP (Landscape Institute 2019) and is further informed by experience in photomontage production. The photomontages are prepared as accurate verified photo-realistic views (equivalent to Type 4 as set out in VRDP) (Landscape Institute 2019). The method follows five main steps:

- Photography;
- Survey;
- 3D Modelling and Camera Matching;
- Rendering and Finishing of Photomontages; and
- Presentation.

15.3.3.1.10 Photomontage - Photography

Conditions, Date and Time

Baseline photographs are clear and representative of the relevant context at each location. Wherever possible, photographs are taken with all key elements of the view clearly visible and unobscured by foreground obstructions, such as vehicular or pedestrian traffic, street furniture, trees, signage, etc. Photographs are up to date insofar as possible, and are taken in good clear weather conditions, without precipitation, excessive darkness or shade, or sun glare etc. The date and time of each photograph is recorded, together with camera and lens metadata.

Camera and Camera Set-Up

Baseline photographs are taken using a digital single-reflex lens (SLR) camera with a full frame sensor. At each viewpoint the camera is positioned on a tripod with the lens 1.65m above ground level (the level of the average adult's eyes), directed at the site and levelled in the horizontal and vertical axes.

Lenses

Prime lenses (fixed focal length with no zoom function) are used as this ensures that the image parameters for every photograph are the same and that all photographs taken with the same lens are comparable. A 24mm prime lens is used for all views. This lens captures a horizontal field of view of 73° (degrees). This relatively wide field of view is preferred as it shows more of the landscape / townscape context.

15.3.3.1.11 Photomontage - Survey

The coordinates of each viewpoint / camera position, including the elevation are measured accurately relative to the topographic survey of the corridor of the Proposed Development. For each viewpoint, the coordinates of a range of static objects or 'reference points' in the view (e.g. lamp posts, corners of buildings, etc.) are also measured in a similar manner.

The coordinates of the camera and 'reference points' are used later in the process to ensure that the direction of view of the camera in the 3D digital model matches that of the view of the photograph.

15.3.3.1.12 Photomontage - 3D Model and Camera Matching

Creation of 3D Model

Drawings (roads, structures, hard and soft landscape areas, etc.) are used to generate a 3D digital model of the Proposed Development with sufficient detail for the viewpoint(s). The 3D digital model is then exported to specialist software to allow for application of materials and textures to the model.

3D Camera Positions

The coordinates of the camera and 'reference points' for each view are inserted into the 3D digital model, with information on the focal length of the lens and horizontal angle of coverage attributed to each camera / view, and the direction of each view is calculated and aligned so as to match the geometry of the original baseline photograph. Additionally, the date and time are set to match that of the baseline photograph so as to ensure the sunlight and shadow projections in the generated renderings match those of the baseline photographs.

15.3.3.1.13 Photomontage - Rendering of 3D Model and finishing Photomontages

For each view a high-resolution render of the Proposed Development is generated. This process allows for the creation of a realistic image of the 3D digital model, as seen from each camera / view position, with sunlight and shadow applied to the model. The render of the Proposed Development is then inserted (or 'montaged') into the baseline photograph and the composite image edited to take away elements to be removed from the existing baseline to create the photomontage of the Proposed Development. Some degree of photo-modelling / photo-manipulation is required in instances where foreground / middle-ground elements are removed (e.g. trees, plantings, etc.) thereby revealing backgrounds which are not captured in the baseline photograph. The intent is to provide a best-fit presentation which assists in illustrating the principal effects of the Proposed Development at a stage approximately 10 to 15 years post completion of construction.

15.3.3.1.14 Photomontage - Presentation and viewing

Individual photomontages are presented, in 'as existing' and 'as proposed' versions, on A3 pages in landscape format in Volume 3B of this EIAR. For each photomontage, the viewpoint number, location description, and the date and time of photography are provided on the page. Given that some views may be based on a wider angle of coverage than a 50mm prime lens, in these instances a further image is provided showing an A3 enlargement (centred on the Proposed Development (where possible)) that equates to the coverage of a 50mm prime lens view.

15.3.4 Consultation

Consultation, and the consideration of feedback from the public and statutory consultees is a key part of the EIA process and integral to informing the design development and this environmental assessment.

The key consultation phases and the feedback received that has informed this chapter include:

- Non-statutory EIA Scoping Report; and
- Options Selection process and the associated two public consultation periods (PC1 and PC2) and associated feedback received through submissions and public information events.

Chapter 1 (Introduction) in Volume 2 of this EIAR includes detail relating to the consultation undertaken during the project. The feedback received is summarised in the public consultation findings reports which has informed this chapter as appropriate. Close collaboration with the project team and other EIA specialists has also helped inform the assessment.

15.3.5 Development of the Proposed Design

Consideration of the potential landscape (townscape) and visual impacts have been important in defining the Proposed Development design. Following initial assessment of impacts, availability of additional information, as well as public consultation, suggestions and recommendations from local residents, community groups and stakeholders, the scheme has undergone iterative design development with the aim of minimising potential negative impacts as far as practicable. This process has also helped define suitable improvements to the urban realm.

15.3.5.1 Impacts on Trees and Vegetation

There has been considerable discussion between the landscape and visual specialists and the engineering design team in order to establish the expected impacts on trees and vegetation, inform the design development and establish suitable mitigation measures. The design has developed in order to limit impacts on trees and vegetation where possible and replacement mitigation as well as enhancement is proposed where feasible. The assessment and design development has been based on both desk study and site investigation by the landscape and visual specialists of tree positions, sizes and approximate expected root areas. Where there is doubt about the exact nature of potential impacts on trees and vegetation the worst-case scenario has been assessed. Vegetation removal is shown on Landscape Drawings (Figure 15.3 in Volume 3A of this EIAR). It is a stated mitigation measure (see Section 15.6.2) that an Arboricultural Impact Assessment be carried out prior to construction in order to determine and specify appropriate protective measures for trees to be retained.

15.3.6 Difficulties Encountered / Limitations

There have been no difficulties encountered in producing this Chapter of the EIAR.

15.4 Receiving Environment

This section includes a description of the baseline environment as it relates to landscape / townscape and visual aspects.

15.4.1 Overview of Site of Proposed Development

A detailed description of the Proposed Development can be found in Chapter 4 (Description of the Proposed Development) in Volume 2 of this EIAR.

15.4.2 Landscape, Townscape and Visual Planning Policy

Landscape, townscape and visual planning policy is set out in the following sections with reference to the appropriate higher-level county / city development plans, lower level local area plans and other documents as appropriate.

15.4.2.1 Dublin City Development Plan 2022 - 2028

The Dublin City Development Plan 2022–2028 (DCC 2022) is the higher county level planning framework applicable to the southern section of the Proposed Development from the southern limit of the route at North Dock to the boundary of Fingal at Clongriffin.

Chapter 4 of the plan, *Shape and Structure of the City*, sets out the overarching framework and strategy to guide the future sustainable development of the city, to ensure that it develops in a sustainable and climate resilient manner in accordance with national and regional policy. It includes policy in relation to urban design and architectural design and historic architectural character of Dublin's structures and spaces. Map 4-1 of this chapter illustrates the designated key views and prospects which are concentrated within the city centre outside of the Study Area.

Chapter 8 of the plan, *Sustainable Movement,* includes four policies and objectives in relation to public transport, walking and cycling. Objective SMT12 supports the reallocation of space to pedestrians and public realm to provide a safe and comfortable street environment for pedestrians. Objective SMT 14 seeks to manage city centre road-space to best address the needs of pedestrians and cyclists, public transport shared modes and the private car including at intersections with DART. Objective SMT22 supports the delivery of key sustainable transport projects, including DART+, subject to environmental requirements and appropriate planning consents being obtained. Policy SMT19 seeks to work with relevant transport providers, agencies and stakeholders to facilitate the integration of active travel (walking / cycling etc.) with public transport, ensuring ease of access for all.

Chapter 10 of the plan, *Green Infrastructure and Recreation,* sets out policies in relation to the provision, importance, protection and enhancement of green infrastructure, landscape, parks and open spaces, rivers, canals and the coastline, biodiversity, trees, sport, recreation and play within the city. The strategic green network as indicated on Figure 10-1 of the Development Plan highlights the Tolka River, Santry River and River Mayne as blue / green corridors.

Objective GI21 seeks to promote the city landscapes including rivers as major resources for the city which form core areas of the green infrastructure network. Map 10-4 of the chapter illustrates the locations of Tree Preservation Orders (TPOs), one of which protects a group of mature holm oaks at Watermill Road in Raheny. Dublin City Council has also prepared separate overarching strategies for the protection, management and improvement of trees (DCC 2016b) and parks (DCC 2019) within the city.

Chapter 11 of the plan, *Built Heritage and Archaeology,* sets out policies relating to preservation, protection and improvement of built heritage, protected structures (RPS), Architectural Conservation Areas (ACA) and Conservation Areas, trees in ACAs, zones of archaeological interest and industrial heritage, monuments and Dublin's cultural assets. There are many sites, buildings and features of historic and heritage interest located along the corridor of the Proposed Development within the Dublin City Development Plan area, including protected structures. Clontarf Railway Bridge which carries the railway across Clontarf Road is a Protected Structure (RPS 880). Other Protected Structures are mostly clustered around Clontarf with relatively few within the more modern suburbs to the north. In this context, it is noted that section 38 of the 2001 Act disapplies Part IV of the Planning and Development Act, 2000, which relates to architectural heritage and protected structures, to development which consists of the carrying out of railway works on foot of a railway order. Former Raheny National School is situated adjacent to the railway on Station Road (RPS 8703). The centre of Raheny includes Recorded Monuments for: the historic settlement area / enclosure (DU015-0820) and St. Assam's Church and Graveyard (DU015-0820).

There are Conservation Areas along the Tolka River and Santry River as well as the linear park at Donaghmede which runs parallel to St. Donagh's Road. Areas at Howth Road, Clontarf Road, Hollybrook Road, St. Lawrence Road and Middle Third / Killester Avenue / Demesne are designated as Residential Conservation Areas (RCA). There is an Architectural Conservation Area at Hollybrook Road which overlaps with the RCA designation. Policies in relation to archaeological and architectural heritage, including definitions of heritage features e.g. protected structures, as they relate to the Proposed Development are discussed in greater detail in Chapter 20 (Archaeology and Cultural Heritage) and Chapter 21 (Architectural Heritage) respectively, in Volume 2 of this EIAR.

The principal land use zonings to either side of the Proposed Development within Dublin City are:

- Objective Z1: 'To protect, provide and improve residential amenities' (common throughout);
- Objective Z2: 'To protect and / or improve the amenities of residential conservation areas' (Howth Road, Clontarf Road, and Middle Third / Killester Avenue / Demesne);
- Z9: 'To preserve, provide and improve recreational amenity and open space and ecosystem services', (e.g. Fairview Park, St. Anne's Park, Clontarf Golf Course, Santry River Corridor, Donaghmede linear park, Donaghmede Park);
- Other land use zonings include:
- Objective Z3: *'To provide for and improve neighbourhood facilities'* (Brookwood Rise);
- Objective Z4: *'To provide for and improve mixed-services facilities'* (Key Urban Village [KUV] 1 at Clongriffin – Belmayne);
- Z10: *'To consolidate and facilitate the development of inner city and inner suburban sites for mixed-uses'* (Harmonstown Road commercial area);
- Z14: *'To seek the social, economic and physical development and/or regeneration of an area with mixed-use, of which residential would be the predominant use'*; and

- Objective Z15: *'To protect and provide for community uses and social infrastructure.'* (Mount Temple School, Raheny Parish Church, Clongriffin).

15.4.2.2 Fingal Development Plan 2023 - 2029

The Fingal Development Plan 2023-2029 (FCC 2023) is the overarching county level planning framework applicable to the section of the Study Area from Kilbarrack to the border of County Dublin at Stamullen / Gormanston.

Chapter 2, *Planning for Growth,* sets out objectives in relation to the pattern of development and policy relating to specific settlements, including policy on Architectural Conservation Areas, and landscape measures relating to Local Area Plans. Policy CSP22 aims to consolidate development and protect the unique identity of Howth, Sutton and Baldoyle. Policy CSP35 seeks to protect the unique identity of Malahide, and states that the need to upgrade and support development of the town centre needs to be balanced with the need to conserve its appearance as an attractive, historic village settlement and the retention of existing amenities. Policy CSP38 aims to protect the unique identities of Malahide, Balbriggan, Lusk, Rush and Skerries. Objective CSO27 seeks to promote and enhance existing ACAs within urban villages and protect their historic characters. Objective CSO54 states the need to retain tree-lined approaches to all towns and villages in order to preserve their special character. Objective CSO57 relates to the preservation and improvement of access to the harbours, beaches and seashores of Balbriggan, Skerries and Rush. Objective CSO61 aims to protect and enhance the traditional hedgerow boundary treatment characteristic of Lusk and promote native tree and hedgerow planting in new developments. Objective CSO66 lists policy related to lapsed Local Area Plan areas at Portmarnock South and Baldoyle – Stapolin including sub-objectives related to green infrastructure, trees, hedgerows and landscape character.

Chapter 4, *Community Infrastructure and Open Space,* sets out objectives in relation to Open Space (Section 4.5.2) and includes Objective CIOSO52, which seeks to protect, preserve and ensure the effective management of trees and groups of trees.

Chapter 6, *Connectivity and Movement,* includes Objectives CMP18 to CMO31, which support sustainable mobility objectives relating to major rail and bus projects such as MetroLink, BusConnects, DART+ and LUAS Expansion under the National Development Plan 2021–2030. Objective CMO23 supports the national transport agencies in delivering sustainable transport projects.

Chapter 9, *Green Infrastructure and Natural Heritage,* addresses, biodiversity, parks, open space and recreation, surface water, heritage, and landscape. Special Amenity Areas, High Amenity Areas, Highly Sensitive Areas, County Geological Sites, Heritage Landscapes and beaches. Specific objectives for Green Infrastructure are set out under Objectives GINHP1 to GINHO26. Objective GINHO30 states that all infrastructure projects are to have a net biodiversity gain and this principle shall be incorporated from the start of the project. Policies in relation to biodiversity and geology as they relate to the Proposed Development are discussed in greater detail in Chapter 8 (Biodiversity), Chapter 9 (Land and Soils) and Chapter 11 (Hydrogeology) in Volume 2 of this EIAR. Figure 9.1 of Chapter 9 shows Geological Heritage Sites at Milverton Quarry and Fancourt Shore in proximity to the Proposed Development.

Objective GINHP10 seeks a net gain in green infrastructure through the protection and enhancement of existing assets, through the provision of new green infrastructure as an integral part of the planning process. Objective GINHO22 states an intention to resist development that would fragment or prejudice the County's strategic green infrastructure network.

Section 9.6 of the plan, *Natural Heritage,* addresses: Trees and Hedgerows; Landscape Character Assessment; Views and Prospects; Special Amenity Areas; and High Amenity Zoning. Section 9.6.9; Protection of Trees and Hedgerows sets out objectives in relation to protection of trees and hedgerows including Tree Protection Orders and Tree Protection Objectives. Policy GINHP21 aims to protect existing woodlands, trees and hedgerows which are of amenity value and contribute to landscape character. Sub-section 9.6.10 of the plan contains policy relating to Tree Preservation Orders (TPOs), however, there are none located within the Study Area.

Sub-section 9.6.14 of the plan describes the Landscape Character Assessment (LCA) which provides for the classification of Fingal's landscapes into 6 Landscape Character Types (LCTs). The route of the Proposed Development is located on the edge of the low sensitivity 'Low Lying' LCT, a large landscape character area covering all of central south Fingal, which is located to the west of the railway. All the coastal areas to the east of the railway are covered by the exceptionally sensitive 'Coastal' LCT with areas of 'Estuary' LCT covering Baldoyle Bay, Malahide Estuary and Rogerstown Estuary. The northern portion of Fingal is covered by the high sensitivity High Lying Agricultural LCT and a narrow section of this meets the railway at Ballykea.

Chapter 10 of the plan, *Heritage Culture and Arts,* sets out policies and objectives in relation to Archaeological and Architectural Heritage, including protected structures, architectural conservation areas, industrial heritage and designed landscapes.

Sub-section 10.5.2.4 of the plan contains policy relating to historic designed landscapes including Malahide Castle, Newbridge House Demesne and Ardgillan Demesne. It is noted that '*due to the rarity of 18th Century or earlier designed landscapes, those that survive in Fingal are highly significant and sensitive*.'

Protected structures are located throughout the Fingal section of the Study Area, including at locations along or adjacent to the railway: Former Signalman's House at Howth Junction Station (RPS No. 788); rail bridge at Grange / Maynetown, Clongriffin (RPS No. 919); Malahide Railway Station (RPS No. 388); railway bridge at over Bissett's Strand, Malahide (RPS No. 423); Malahide Railway Viaduct (UBB30) (RPS No. 420); railway bridge at Corballis Road, Kilcrea (RPS No. 502); Donabate Railway Station and Former Station Master's House (RPS Nos. 511 and 510); Rogerstown Viaduct (UBB36) (RPS No. 516); rail bridge at Rogerstown, Lusk (RPS No. 286); road bridge at Rogerstown Lane, Rogerstown (RPS No. 287); Rush and Lusk Station (RPS No. 288); road bridge at Tyrellstown (RPS No. 292); road bridge L1285, Ballykea (RPS No. 246); rail bridge at Dublin Road, Townparks, Skerries (RPS No. 231); Skerries Railway Station and Station Master's House (RPS Nos. 191 and 192); two rail bridges at Barnageeragh Road (RPS No.'s. 880 and 879); Croom House, Balbriggan (RPS No. 53); Balbriggan Viaduct (UBB56) (RPS No. 36); Former RNLI Boathouse (RPS No. 35); Balbriggan Railway Station (RPS No. 30); Chimney of Former Sea Mills Hosiery Factory (RPS No. 19); Bridge at Bremore (RPS No. 876); railway bridge off Drogheda Road, Bremore (RPS No. 12); and Knocknagin / Gormanston Viaduct (UBB65) (RPS No. 1).

Again, it is noted that section 38 of the 2001 Act disapplies Part IV of the Planning and Development Act, 2000, which relates to architectural heritage and protected structures, to development which consists of the carrying out of railway works on foot of a railway order.

Policies in relation to heritage as they relate to the Proposed Development are discussed in greater detail in Chapter 20 (Archaeology and Cultural Heritage) and Chapter 21 (Architectural Heritage) in Volume 2 of this EIAR.

Map Sheet 9 of the plan identifies existing trees at Malahide Demesne, including adjacent to the railway, for protection and preservation. Sheet 10 identifies existing trees within existing residential areas at Stapolin for protection and preservation. Sheet 4 shows tree preservation objectives at Ardgillan Demesne and Hampton Demesne, south of Balbriggan, including locations adjacent to the railway.

Objective GINHO60 seeks to protect views and prospects that contribute to the character of the landscape, particularly those identified in the Fingal Development Plan, from inappropriate development. Sheets 6 to 9 show preserved views from the southern and northern shores of Malahide Estuary, at Bissett's Strand and at locations surrounding Rogerstown Estuary. Sheet 6B shows preserved views along Station Road R128 at Effelstown, in proximity to Rush and Lusk Station. Sheet 5 shows various preserved views along roads in the rural area between Rush and Skerries: along unnamed road / Golf Links Road in Loughland; along Ballaghstown Lane in Baldongan; along unnamed road / eastern edge of Milverton Demesne in Ardlagh; and along the R128 between Rush and Skerries. Sheets 4 and 5 show preserved views along an unnamed road in Strifeland, along the beach front in Skerries up to Balbriggan and along the R132 in Bremore.

Sheet 9 shows recreational routes at Bissett Strand / Old Street, Malahide which passes under the railway, and a circular route along the perimeter of Malahide Demesne in proximity to the railway. Sheet 7 shows recreational routes around Newbridge Demesne and Sheet 4 shows a substantial network of recreational routes within Ardgillan Demesne including a route running parallel near to the railway.

Sheet 14 (Green Infrastructure 1) indicates a number of Mapped Objectives. Mapped Objective GIM2 is shown at Malahide Castle, Newbridge Castle, Ardgillan Demesne and Bremore Castle: to protect the natural and built heritage, which include important historic sites, landscapes and gardens, while providing significant public amenities. Mapped Objective GIM7 is shown at Rogerstown Park at Balleally Lane, indicating an aim to continue developing this as a new regional park. Mapped Objectives GIM1 and GIM3 are shown at Bremore Regional Park indicating an aim to upgrade and enhance Bremore Regional Park and to provide a new active recreation hub.

Sheet 14 also indicates that the entire coast of Fingal is designated as Highly Sensitive Landscape. This designation covers much of the area of the Coastal and Estuary Landscape Character Types, defined as exceptional sensitivity in the Fingal Landscape Character Assessment, but it also extends into areas of Low Lying LCT (defined as generally low sensitivity) around Baldoyle Bay, Malahide Estuary and Rogerstown Estuary. Relatively small and isolated areas of Highly Sensitive Landscape are also shown at inland locations at Kinsealy, Courtlough and Balscadden, with a larger area shown at the relatively elevated landscape south of Naul mostly within the High Lying LCT (high sensitivity) but also extending into the Low Lying LCT.

As shown on Sheet 14, Architectural Conservation Areas (ACAs) are present at the western edge of Portmarnock (old Portmarnock), at three locations in the centre of Malahide (Malahide - The Bawn, Parnell Cottages & St. Sylvester's Villas ACA; The Rise ACA; and Malahide Historic Core ACA), at Malahide Demesne, at Newbridge Demesne, at Portraine (Portrane) Demesne, at Milverton Demesne, in the centre of Skerries, at Ardgillan Demesne and two areas in the centre of Balbriggan.

The Howth Special Amenity Area Order is shown on Sheet 14 covering much of the Howth Peninsula the intention of which is to protect the special qualities of the area and aim to preserve and enhance the character and special features of Howth. Although this area is distant from the Proposed Development the Howth branch of the railway passes close to the Howth Special Amenity Area Buffer Zone.

The principal land use zonings to either side of the Proposed Development within Fingal are:

- Objective RA: *'Provide for new residential communities subject to the provision of the necessary social and physical infrastructure'* (e.g. Portmarnock South, Broomfield (Malahide), Donabate);
- Objective RS: *'Provide for residential development and protect and improve residential amenity'* (existing residential areas throughout);
- Objective RU: *'Protect and promote in a balanced way, the development of agriculture and rural related enterprise, biodiversity, the rural landscape, and the built and cultural heritage'*;
- Objective GB: *'Protect and provide for a Greenbelt'* (e.g. between Dublin and Malahide);
- Objective HA: *'Protect and enhance high amenity areas'* (agricultural land along the coast and around estuaries with some inland areas); and
- Objective OS: *'Preserve and provide for open space and recreational amenities'* (e.g. Malahide Castle and other Demesnes / Parks).

Other land use zonings include:

- Objective HT: *'Provide for office, research and development and high technology / high technology manufacturing type employment in a high quality built and landscaped environment'* (e.g. Balbriggan);
- Objective TC: *'Protect and enhance the special physical and social character of town and district centres and provide and/ or improve urban facilities'* (e.g. centres of Malahide, Donabate and Balbriggan);
- Objective GE: *'Provide opportunities for general enterprise and employment* (e.g. Howth Junction / Baldoyle)';
- Objective CI: *'Provide for and protect civic, religious, community, education, health care and social infrastructure'* (scattered locations throughout urban areas); and
- Objective RC: *'Provide for small scale infill development serving local needs while maintaining the rural nature of the cluster'*.

15.4.2.3 Public Realm Redevelopment for Quay Street and Environs, Balbriggan

Fingal County Council proposes to carry out public realm redevelopment and associated works at Mill Street, Quay Street, Harbour Road, Balbriggan Harbour (protected structure, RPS 0038), the area beneath the railway viaduct (protected structure, RPS 0036), the RNLI lifeboat house (protected structure, RPS 0035) and including existing open spaces, car parking, roads, pedestrian footpaths and a section of the Bracken River, all at Balbriggan.

The aspirations for the redevelopment and rejuvenation of Quay Street and Environs, is the creation of a large pedestrian friendly event / market space off Quay Street focused around the arches of the Railway Viaduct and upgrade of the public realm in the carpark areas and green open space on both sides of the Bracken River to transform it into a highly accessible and citizen-friendly space which can facilitate events and promotes activity with appropriately located planting zones to encourage flora and fauna and which accentuates the amenity of green space and the Bracken River.

15.4.2.4 Donabate Local Area Plan 2016

The Donabate Local Area Plan (LAP) (FCC, 2016, as extended) is the lower-level planning framework applicable to lands south of Donabate and north of the River Pill and Malahide Estuary (estuary of the River Pill / Broadmeadow River).

The ambition of the LAP is to provide for the structured development of the identified new residential areas of Donabate, such that they integrate into the established village and support the continued growth of a vibrant and attractive town for existing and future residents. A key aim of the LAP is to protect and enhance the existing natural amenities of Donabate together with improving access to established local amenity areas through the creation of a network of designated green routes. A proposed Nature Park will be located south of the LAP lands at Corballis, providing a buffer zone between the LAP lands and Malahide Estuary.

15.4.2.5 Castlelands Masterplan 2021

The Castlelands Masterplan (FCC, 2021) is the lower-level planning framework applicable to lands south of Balbriggan and west of the railway. The purpose of this Masterplan is to provide a robust Development Framework for the Long-term future sustainable development of a new quality residential quarter incorporating good community facilities at Castlelands. The likely time period required to deliver the Proposed Development within the Masterplan lands will be over 10 years.

The Castlelands lands comprise circa. 24.2 ha of greenfield, undulating lands that benefit from ‘exceptional views over the coast to the east’. Under the current Fingal Development Plan c. 22 ha of the lands are zoned ‘Residential Area – RA’ with the remaining c. 2.2 ha zoned ‘Open Space – OS’.

A key principle of the masterplan is to provide for the construction of the Castlelands Link Road to the R127, which will be designed as a high capacity urban street with a strong emphasis on connectivity and the promotion of place. The link road will include a bridge crossing of the Dublin to Belfast Railway line. Another key principle is the provision of a footbridge for pedestrians and cyclists connecting the central green corridor to the lands to the east of the Skerries Road.

The masterplan indicates the area adjacent to the railway to be established as an area of residential mixed typologies with lower density development towards the eastern boundary with the railway. A central spine of open space is proposed running west to east across the site to meet the railway at the south-east corner of the masterplan lands.

15.4.2.6 Meath County Development Plan

The Meath County Development Plan 2021–2027 (MCC, 2021) is the higher county level planning framework applicable to the southern section of the Proposed Development from the southern limit of the route through the county at Delvin Bridge to the northern county border in the outskirts of Drogheda.

Chapter 7 of the plan contains policies relating to open spaces, including SOC POL 40: '*To resist the loss of existing public open space, unless alternative recreational facilities are provided in a suitable location'.*

Chapter 8 of the plan, *Cultural and Natural Heritage Strategy*, sets out policies relating to preservation, protection and improvement of built heritage, protected structures (RPS), Architectural Conservation Areas (ACA), zones of archaeological interest, industrial heritage, monuments, designed landscapes, trees and hedgerows, inland waterways, wetlands, geological heritage, landscape character, views and prospects and green infrastructure. Map 8.2 of the plan indicates a small ACA at Netterville and Victoria Terrace in Laytown, and another in the centre of Julianstown. Maps 5.2b, 5.3b and 5.4b show Protected Structures on or adjacent to the railway at Knocknagin / Gormanston Viaduct (UBB65) (RPS No. 91,050) Laytown Viaduct (UBB72) (RPS No. 91,073) Laytown Station Masters House (RPS No. 91,072) and Stameen (RPS No. 90,723). There are no ACAs within the Meath section of the Study Area.

Policies in relation to archaeological and architectural heritage, including definitions of heritage features e.g. protected structures, as they relate to the Proposed Development are discussed in greater detail in Chapter 20 (Archaeological & Cultural Heritage) and Chapter 21 (Architectural Heritage) respectively of this EIAR.

The Landscape Character Assessment for Meath, included as Appendix 5 to the Development Plan, indicates the majority of the coastal landscape within the Study Area as Landscape Character Area (LCA) 7 – Coastal Plains. This LCA is described as:

'*The coastal plain is a large area of east coast lowland divided by, the River Nanny estuary. It is known as the 'Gold Coast.' The area is characterised by scrubby rolling lowland near the coast interspersed with stands of pine. The River Nanny estuary is a steep sided river plain bound by attractive mixed woodland.'*

The settlement of Laytown is described as containing some attractive buildings, an indistinct centre and with some unattractive development and a 'degraded urban fringe' which detracts from the quality coastal location. Recommendations for this LCA include protecting and conserving long-range views afforded from the area of the River Nanny and developing the east coast rail line to improve access for tourists to a variety of attractions and recreational activities. Although a specific sensitivity rating is not suggested for railway development in the LCA the area is deemed to have a *'Low potential capacity to accommodate overhead cables, substations and communication masts due to the long distance views afforded along the coastline',* and a '*high'* sensitivity to development overall.

LCA 7 is dissected by the River Nanny Valley LCA (LCA 8) which runs from Duleek to the mouth of the River at Laytown. '*The River Nanny corridor is very enclosed with mixed woodland and an extensive stonewall from Julianstown to the R154 and R152 junction. The estuary passes underneath the old railway bridge at Laytown, which services the east coast line. The landscape of the River Nanny is attractive with extensive mixed woodland and grassland forming a variety of habitats'.* Although a specific sensitivity rating is not suggested for railway development in the LCA the area is deemed to have a *'Low potential capacity to accommodate overhead cables, as they would significantly alter the natural character of the river and its setting'*, and a '*high'* sensitivity to development overall.

Map 5.4 (A), Laytown Land Use Zoning Map, shows high amenity areas to the north of the River Nanny estuary and along the dunes areas and open spaces along the coastline of the town. The wooded riparian corridor between the railway station environs and the rural area to the west zoned as a strategic employment site, is shown as designated open space.

Map Sheet 5.3b of the plan, Bettystown (Heritage), shows trees to be protected in residential properties off Pilltown Road.

Map 8.3 of the plan indicates a Special Protection Area at the River Nanny Estuary which crosses the railway. Map 8.6 of the plan shows Preserved views and Prospects, indicating a protected view at Laytown Strand looking northwards along the shore. Map 9.3 of the plan illustrates the locations of Tree Preservation Orders (TPOs), none of which are within the Study Area.

The principal land use zonings to either side of the Proposed Development within Meath are:

- Objective A1: *'To protect and enhance the amenity and character of existing residential communities'*;
- Objective A2: *'To provide for new residential communities with ancillary community facilities, neighbourhood facilities and employment uses as considered appropriate for the status of the centre in the Settlement Hierarchy'*;
- Objective RA: *'To protect and promote in a balanced way, the development of agriculture, forestry and rural-related enterprise, biodiversity, the rural landscape, and the built and cultural heritage'*; and
- Objective WL: *'To protect strategic lands from inappropriate forms of development which would impede the orderly expansion of a strategic urban centre'*.

Other land use zonings include:

- Objective C1: 'To provide and facilitate mixed residential and business uses';
- Objective D1: 'To provide for appropriate and sustainable visitor and tourist facilities and associated uses';
- Objective E1/E2: *'To provide for the creation of enterprise and facilitate opportunities for employment through industrial, manufacturing, distribution, warehousing and other general employment/enterprise uses in a good quality physical environment'*;
- Objective F1: *'To provide for and improve open spaces for active and passive recreational amenities'*;
- Objective G1: *'To provide for necessary community, social, and educational facilities'; and*
- Objective H1: *'To protect and improve areas of high amenity.'*

15.4.2.7 Louth County Development Plan 2021 – 2027

The Louth County Development Plan 2021-2027 (LCC, 2021) is the overarching county level planning framework applicable to the section of the Study Area from the south-east edge of Drogheda town at Colpe Road to the end of the Proposed Development at Drogheda MacBride Station.

Chapter 8 of the plan, Cultural and Natural Heritage Strategy, addresses, biodiversity, parks, open space and recreation, surface water, sites of geological interest, landscape character, trees and woodlands of special amenity, Areas of Outstanding Natural Beauty, Areas of High Scenic Quality, views and prospects, and scenic routes. Section 8.11 of the plan contains policy relating to trees and hedgerows. Objective NBG 30 seeks to protect trees and woodlands of special amenity value. Map 8.11 shows Trees and Woodlands of Special Amenity Value in Drogheda, including trees adjacent to the railway bridge on Dublin Road. Objective NBG 31 states that in Drogheda, where in exceptional circumstances trees and / or hedgerows are required to be removed for development, replacement trees are required to be provided at a ratio of 5:1 to trees lost. Objective NBG33 seeks to incorporate significant trees and hedgerows into design proposals where appropriate. Objective NBG 30 seeks to protect trees and woodlands of special amenity value. Table 8.6 of this chapter lists Tree Preservation Orders, the nearest of which is at Bayview House outside of the Study Area. Policies in relation to biodiversity and geology as they relate to the Proposed Development are discussed in greater detail in Chapter 8 (Biodiversity), Chapter 9 (Land & Soils) and Chapter 11 (Hydrogeology), respectively.

Map 8.5 illustrates landscape character areas forming part of the Louth Landscape Character Assessment (LCC, 2002). The section of the Proposed Development within County Louth is contained within the Boyne and Mattock Valley LCA, although the description presented in the character assessment relates more to the rural hinterland of Drogheda rather than to the urban area itself.

Chapter 9 of the Plan addresses architectural heritage. Section 9.6.1 includes policy relating to Architectural Conservation Areas (ACAs) in Louth. Appendix 11 includes details of ACAs and Map 11.1 illustrates the location of ACAs in Drogheda. An Architectural Conservation Area (ACA) is identified for No.'s 1 – 6 Railway Terrace c.60m south of Drogheda MacBride Station lands.

Trees at Bayview House, Cromwell's Lane, to the west of side of Dublin Road Drogheda, are subject to a Tree Preservation Order (TPO).

The Boyne Viaduct (UBB82) is listed on the Record of Protected Structures (LCC RPS DB-176) as is Drogheda MacBride Station (LCC RPS DB-055). Five additional structures in the station are also included in the Record of Protected Structures:

- Engine Shed (LCC RPS DB-395);
- Water Tower (LCC RPS DB-397);
- Parcel Office (LCC RPS DB-396);
- Boiler House (LCC RPS DB-398); and
- Toilet Building (LCC RPS DB-399).

Bayview House at Cromwell's Lane is also listed on the Record of Protected Structures (LCC RPS DB-301). All of these structures are also included in the National Inventory of Architectural Heritage (NIAH) where the viaduct is rated of National Importance and the others are of Regional Importance for reasons of architectural, technical and social interest. As noted above, section 38 of the 2001 Act disapplies Part IV of the Planning and Development Act, 2000, which relates to architectural heritage and protected structures, to development which consists of the carrying out of railway works on foot of a railway order.

15.4.3 Landscape, Townscape and Visual Character

The landscape / townscape and visual character of each zone of the Proposed Development is described in Table 15-5 with reference to different landscape / townscape character areas, landscape, townscape and visual characteristics, features, designations, and sensitivities. The key features are identified on the Landscape /Townscape and Visual Baseline Figure 15.1 in Volume 3A of this EIAR. A full list of Architectural Heritage Features is described in Section 21.5 in chapter 21 (Architectural Heritage) in Volume 2 of the EIAR. Each feature is given a corresponding BH number which can be identified on in Figure 21.1 in Volume 3A of this EIAR.

Table 15-5 Analysis of Baseline Landscape / Townscape and Visual Environment of the Proposed Development

Zones	Baseline Description	Baseline Sensitivity
Zone A: North of Connolly Station to Howth Junction and Donaghmede Station	**Landscape / Townscape Character:** This zone passes through largely suburban areas in the north-east portion of the Dublin conurbation in proximity to Dublin Bay; from the River Tolka and the edge of the inner-city commercial and mixed-use residential areas; through areas of outer city suburbs of Clontarf, Killester, and Donaghmede. The suburbs are largely composed of 20th century detached / semi-detached properties. There are a number of modest commercial areas and institution uses throughout with significant areas of open space present at Fairview Park, Clontarf Golf Course and the Santry River corridor. **Site Fabric:** The railway passes along embankment, cuttings and at grade sections. The rail corridor is largely bordered by dense vegetation including mature trees which provide a significant screening effect. A number of over and under bridges convey roads across the railway. A pedestrian bridge is present at Grange Park Crescent / Briarfield Walk and another at Harmonstown Station. **Key Landscape / Townscape Features:** A large railway depot is present at Fairview and a substantial railway junction / station complex is present at Howth Junction and Donaghmede Station. The Tolka and Santry river corridors pass through urban areas and areas of amenity land. Significant open spaces at Fairview Park, St. Annes Park, Clontarf Golf Club and the landscaped grounds of Mount Temple School. Residential areas are generally low density with generally large front gardens and moderate to large rear gardens. The streetscapes include many established street trees and frequent small open spaces. The modernist Raheny Parish Church (Our Lady Mother of Divine Grace Church) is a key local landmark as are the nearby historic ruins of St. Assam's Church and graveyard / enclosure.	Medium / High

Zones	Baseline Description	Baseline Sensitivity
	Amenity Designations: There are Residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St. Lawrence Road and Middle Third / Killester Avenue / Demesne. The Tolka and Santry River corridors are designated as Conservation Areas. Major open space designations are present at Fairview Park, St. Annes Park, and Clontarf Golf Course and the Santry River corridor. **Tree Preservation Order (TPO):** A group of mature holm oaks at Watermill Road, Raheny, are designated. **Tree / Woodland Preservation Objectives:** None. **Preserved views:** None. **Protected Structures / Recorded Monuments:** Clontarf Railway Bridge which carries the railway across Clontarf Road is a Protected Structure (RPS 880). Other Protected Structures are mostly clustered around Clontarf with relatively few within the more modern suburbs to the north. Former Raheny National School is situated adjacent to the railway on Station Road (RPS 8703). The centre of Raheny includes Recorded Monuments for: the historic settlement area / enclosure (DU015-0820) and St. Assam's Church and Graveyard (DU015-0820). Refer to Chapter 21 (Architectural Heritage) for full details of Protected Structures and Recorded Monuments. **Other:** The railway line crosses several key streets / arterial routes that connect the eastern suburbs to other areas of Dublin City.	
Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct	**Landscape / Townscape Character:** This zone passes through a gradient of varying urban townscape / landscape / seascape characters: from the outer city suburban residential areas of Donaghmede; through the emerging neighbourhoods of Clongriffin / Belmayne, Baldoyle / Stapolin and Portmarnock South / Drumnigh Manor; through the urban-fringe / semi-rural area between Malahide and Portmarnock; into the urban area of Malahide town; before crossing Malahide Estuary. **Site Fabric:** The fabric of the site is contained mostly within the existing operational railway line. Where the line runs through the urban areas of Dublin, it runs generally at grade or slightly cut/embanked with dense trackside hedgerows and trees providing screening for surrounding established residential areas. The emerging townscapes of Clongriffin / Belmayne, Baldoyle / Stapolin are more open with limited established screening vegetation. The railway is within a cutting where it passes Portmarnock and in the emerging neighbourhoods of Portmarnock South / Drumnigh Manor there is dense trackside vegetation which minimises visibility. Where the railway passes through Malahide the tracks are also similarly screened by sections of cutting and dense trackside vegetation before rising onto embankment to bridge over Strand Road and passing to the west of residential properties at Marina Village. At the northern end of the zone the railway crosses Malahide Estuary on an embankment / causeway with a c. 180m long concrete bridge structure – Malahide Viaduct (UBB30) set in the centre of the estuary. **Key Landscape / Townscape Features:** Malahide Estuary, including the railway crossing, Malahide Viaduct (UBB30) and the marina, is a notable feature in the landscape / seascape. **Amenity Designations:** The linear park parallel to St. Donagh's Road, Donaghmede is a designated open space and Conservation Area. Donaghmede Park is a moderately- sized designated open space which borders the railway. Major amenity areas at Malahide Castle Demesne and at Malahide Golf Club. ACAs at: Malahide Demesne, Malahide - The Bawn, Parnell Cottages & St. Sylvester's Villas ACA; The Rise ACA; and Malahide Historic Core ACA.	Medium / High

Zones	Baseline Description	Baseline Sensitivity
	Tree Preservation Order (TPO): None. **Tree / Woodland Preservation Objectives:** Tree preservation objectives are present for trees at Malahide Demesne, including areas adjacent to the railway, and trees in residential areas at Stapolin. **Preserved views:** Preserved views from the southern and northern shores of Malahide Estuary, at Bissett's Strand. **Protected Structures:** Former Signalman's House at Howth Junction and Donaghmede Station (RPS No. 788); rail bridge at Grange / Maynetown (RPS No. 919); Malahide Railway Station (RPS No. 388); railway bridge at over Bissett's Strand, Malahide (RPS No. 423); Malahide Railway Viaduct (UBB30) (RPS No. 420). (Refer to Chapter 21 (Architectural Heritage) for full details). **Other:** There is substantial new development associated with the emerging neighbourhoods of Clongriffin / Belmayne, Baldoyle / Stapolin and Portmarnock South which are undergoing rapid change to mixed use urban areas under their respective Local Area Plans. Fingal County Council proposes to develop the Broadmeadow Way, a new greenway between Malahide Demesne and Newbridge Demesne via the railway causeway across the Malahide Estuary.	
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)	**Landscape / Townscape Character:** This zone passes through the estuarine landscapes of Malahide and Rogerstown estuaries to the south, inland sections of rural coastal plain between Rush, Lusk and Skerries before following the coast line to the northern border of Fingal north of Balbriggan. **Site Fabric:** The fabric of the site is contained largely within the existing operational railway line comprising sections at-grade and in cuttings and along embankments. Some areas of adjacent agricultural land are also proposed for development. The railway passes along a substantial viaduct and embankment within the centre of Balbriggan. **Key Landscape / Townscape Features:** Historic demesnes at Newbridge House and Ardgillan Castle. Harbour and beach and substantial historic viaduct at Balbriggan. **Amenity Designations:** High amenity designation covers much of the rural coastline and areas around the estuaries, including the panoramic view at Ben Head. Beaverstown Golf Course and Skerries Golf Course adjoin the railway. The historic demesnes of Newbridge and Argillan are designated ACAs. ACA in centre of Balbriggan. **Tree Preservation Order (TPO)**: None. **Tree / Woodland Preservation Objectives:** Tree preservation objectives are present at Ardgillan Demesne and Hampton Demesne, south of Balbriggan, including locations adjacent to the railway. **Preserved views:** Preserved views along: Station Road R128 at Effelstown, in proximity to Rush and Lusk Station; unnamed road / Golf Links Road in Loughland; Ballaghstown Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; the beach front in Skerries; R127 Skerries Road to Balbriggan; The Bower, Balbriggan; and along the R132 in Bremore. **Protected Structures:** Railway bridge at Corballis Road, Kilcrea (RPS No. 502); Donabate Railway Station and Former Station Master's House (RPS No.'s 511 and 510); Rogerstown Viaduct (UBB36) (RPS No. 516); rail bridge at Rogerstown, Lusk (RPS No. 286); road bridge at Rogerstown Lane, Rogerstown (RPS No. 287); Rush and Lusk Station (RPS No. 288); road bridge at Tyrellstown (RPS No. 292); road bridge L1285, Ballykea (RPS No. 246); rail bridge at Dublin Road, Townparks, Skerries (RPS No. 231); Skerries Railway Station and Station Master's House (RPS No.'s 191 and 192); two rail bridges at	High

Zones	Baseline Description	Baseline Sensitivity
	Barnageeragh Road (RPS No.'s 880 and 879); Croom House, Balbriggan (RPS No. 53); Ballbriggan Viaduct (UBB56) (RPS No. 36); Former RNLI Boathouse (RPS No. 35); Balbriggan Railway Station (RPS No. 30); Chimney of Former Sea Mills Hosiery Factory (RPS No. 19); Bridge at Bremore (RPS No. 876); railway bridge off Drogheda Road, Bremore (RPS No. 12); and Knocknagin / Gormanston Viaduct (UBB65) (RPS No. 1). (Refer to Chapter 21 (Architectural Heritage) for full details). **Other:** Proposed Broadmeadow Way Greenway	
Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border	**Landscape / Townscape Character:** This zone comprises rural low-lying coastal plain along a straight coastline with continuous stretches of sandy beach. Rural development is mainly scattered along local roads with some clustered settlements as well as the larger seaside settlement of Bettystown and adjoining Laytown. The land cover comprises a mixture of arable and pasture lands in a small-scale pattern of fields which are frequently separated by hedgerows. The River Nanny dissects this zone running from the west to meet the sea at Laytown. **Site Fabric:** The fabric of the site is contained largely within the existing operational railway line comprising sections at-grade and in cuttings and along embankments. Railway passes along a moderately sized, historic viaduct at Laytown. **Key Landscape / Townscape Features:** Modern railway infrastructure following a historic railway route. The coast contains a series of sandy beaches including the popular Laytown Strand at the River Nanny estuary. Gormanston Army Camp and Mosney Accommodation Centre are situated adjacent to the railway. **Amenity Designations:** High Amenity areas are present in Laytown to the north of the River Nanny Estuary and along the beachfront. Designated Open Space west of Laytown Station and north of the railway on the outskirts of Drogheda. Zoned area of Community Infrastructure south of Laytown comprising Seafield – St. Colmcille's GAA Club and Laytown Pitch and Putt Club. **Tree Preservation Order (TPO)**: None. **Tree / Woodland Preservation Objectives:** Tree preservation objectives are present in Tolka Valley and rural areas to the west of Castleknock (Fingal); None (Meath) **Preserved views:** View at Laytown Strand looking northwards along the shore (Ref. No. 65) and expansive views of the Boyne Estuary from coast road between Mornington and Drogheda (passing Drogheda Grammar School) (Ref. No. 75). Distant elevated rural views to the west (Ref. No.'s. 68, 69, 70 and 71). **Protected Structures:** Dunboyne Bridge (Meath RPS No. 90085) and Dunboyne Station Water Tower (Meath RPS No. 90,084). **Other:** Emerging new suburb at Hansfield, adjacent to the railway line.	High
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda	**Landscape / Townscape Character:** This zone is entirely within Louth and the suburban / urban context to the southeast of Drogheda town centre. The station is south of the River Boyne which flows west to east beneath the Boyne Railway Viaduct (UBB82). The lands of Drogheda MacBride Station, the railway corridor (north to R150 Marsh Road) and the lands to the north of the station are zoned J1 Transportation Development Hub in the Louth Development Plan. This zoning includes McBride Pitch and Putt Course and adjoining areas north / northeast of the station.	Medium / High

Zones	Baseline Description	Baseline Sensitivity
MacBride Station)	Lands to the west and south of the station are zoned A1 Existing Residential and H1 Open Space and comprise established residential areas at Carmelite Cottages, Pines Hamlet, Cromwell's Lane / St. Mary's Villas (west of Dublin Road), Dublin Road and Railway Terrace (leading to McGrath's Lane). The majority of properties have mature gardens / boundaries with good screening – though some properties at Carmelite Cottages and Pines Hamlet have views onto railway lands. A1 New Residential and J2 Public Infrastructure and Utilities are zoned to the east with planning consented for new development. Two residential properties are located on McGrath's Lane on the north side of the station / railway. 'Chanticleer' is located at the western end, while 'Newtown Lodge' is located at the eastern end of the lane. Both properties have relatively mature gardens with good screening. East of McGrath's Lane an area of land is zoned A2 New Residential and permission for development of 133No. residential properties with road access extending north to R150 Marsh Road was granted under LCC ref. No.: 17/387. There are elevated views over the railway corridor and station lands from the overbridge on McGrath's Lane (OBB80/80A/80B). **Site Fabric:** The fabric of the site is contained largely within the existing operational MGWR line. Some sections of the line approaching the depot / station complex are steeply embanked with dense vegetation screening adjoining residential areas. A tall and steep bank of tree planting screens the southern side of the depot building. The line is crossed by a single lane road bridge at Railway Terrace / McGrath's Lane. The station area is relatively well-screened within its immediate setting with established residential development to the west and south. The west side of the station – and the main entrance to the station – is defined by the R132 Dublin Road, with its stone retaining wall along the road and stone wall at the top of the embankment. The main station carpark, which adjoins the railway corridor and station buildings, is located off the Dublin Road. The carpark includes standard lighting poles and two telecommunication mast structures, one of which is close to the main station building. **Key Landscape / Townscape Features:** A substantial railway station and depot complex on the edge of the town centre. Areas of woodland adjoin the railway. The Boyne Railway Viaduct (UBB82) to the north is notable landmark feature within the town. The combination of embanked railway lines and cutting for Dublin road creates steep banks between the two. **Amenity Designations:** McBride Pitch and Putt course to the north of the station. Open space designation north of railway on outskirts of Drogheda (adjacent to Cairnes Court). ACA at Railway Terrace. **Tree Preservation Order (TPO):** TPO at Bayview House, Cromwell's Lane. **Tree / Woodland Preservation Objectives:** Trees of Special Amenity Value designation is present for existing trees at Dublin Road railway bridge. **Preserved views:** None **Protected Structures:** Engine Shed (LCC RPS DB-395); Water Tower (LCC RPS DB-397); Parcel Office (LCC RPS DB-396); Boiler House (LCC RPS DB-398); and Toilet Building (LCC RPS DB-399). **Other:** None	

15.5 Description of Potential Impacts

15.5.1 Potential Construction Impacts

Potential construction effects are likely to result from the following impacts:

- Removal of existing landscape features, trees, hedgerows;
- General landscape disturbance including disturbance adjacent to existing property boundaries;
- General construction activity, site compounds, construction traffic;
- Temporary, realigned or regraded access routes;
- Regrading, retaining and engineering works to railway lines;
- Construction of overhead line equipment (OHLE) to existing and proposed lines;
- Construction of substations and associated boundaries and access routes;
- Modifications to existing railway stations, depots and structures;
- Construction of new signalling (signal head, location cases, signal gantries);
- Construction works to existing bridges including protected structures; and
- Diversions to existing services including construction of new under track crossings.

The Proposed Development crosses a mixture of urban, suburban and rural landscapes and townscapes where residential development and landscape amenities are often located in close proximity. The proposals will occur largely within the existing railway lands or near to the railway corridor. Locations of major development outside of the railway corridor are limited to establishment of new substations and associated access routes. Full details of the Construction Phase are included in Chapter 5 (Construction Strategy).

The provision of the Proposed Development will inevitably give rise to some localised substantial changes and impacts on the local landscape and on views from properties sited in the vicinity of the more substantial offline parts of the development. The landscape and visual impacts will be most pronounced during the construction and initial operation stages, after which landscape mitigation measures are expected to be increasingly effective in integrating the Proposed Development within the landscape and in reducing landscape and visual impacts.

15.5.1.1 Impacts on Landscape / Townscape Character

15.5.1.1.1 Zone A - North of Connolly Station to Howth Junction and Donaghmede Station

The baseline townscape of Zone A is of **medium / high sensitivity**. The railway passes through largely suburban areas in the north-east portion of the Dublin conurbation in proximity to Dublin Bay; from the River Tolka and the edge of the inner-city commercial and mixed-use residential areas; through areas of outer city suburbs in of Clontarf, Killester, and Donaghmede. As this section of railway is already electrified the construction works will be limited to minimal changes at Fairview Depot. The construction works will not alter the overall townscape character along this section of the Proposed Development, but there will be some limited indirect impacts on landscape receptors in the vicinity of the depot at a local level. The magnitude of change on the overall townscape character will be **low** and the effect in the Construction Phase will be **Slight / Moderate, Negative, Temporary / Short-term**.

15.5.1.1.2 Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct

The baseline townscape / landscape of Zone B is of **medium / high sensitivity**. In Zone B the works will involve minimal change to the majority of the railway, which is currently electrified. Substantial works are proposed to take place at Howth Junction and Donaghmede Station, Clongriffin Station and on the approach to and along Malahide Viaduct (UBB30).

These works will occur in the context of existing railway activity and infrastructure and in the case of the locations at Howth Junction and Clongriffin, in an urban / emerging urban setting. The works will be relatively well enclosed and the potential effects will be limited to adjacent areas with a minimal effect on the townscape / landscape area as a whole. Significant works are proposed along the west side of the railway embankment north of Strand Road. This will see the existing rip-rap covered west side slopes of the embankment replaced with a new artificial stone modular reinforced earth wall of between 1 and 3 m in height and a regraded embankment for the provision of a turnback track.

The changes to Malahide Viaduct (UBB30) and embankment will occur within the open expanse of Malahide Estuary and will entail more wide-ranging effects. Nevertheless, these changes will also be experienced in the context of existing railway activity and infrastructure. In addition, although the viaduct is a protected structure most of the construction is a modern replacement with limited contribution to the landscape character of the area.

The construction works will give rise to generally minimal changes within the corridor of the railway which passes through a gradient of characters from a suburban residential townscape, through an emerging new urban area, through to an estuarine coastal landscape. There will be localised substantial works and changes largely within railway lands to facilitate station improvements, track expansion and electrification of railway on the causeway and the Malahide Viaduct (UBB30).

The Construction Phase within this zone involves demolition and construction of station buildings (at Howth Junction and Donaghmede Station), excavation, works to existing tracks, construction of new turnback sidings at Clongriffin and Malahide, including a new retaining wall at Clongriffin and provision of a new modular reinforced earth wall to Malahide Viaduct embankment with substantial local disturbance.

There will be construction of OHLE along Malahide Viaduct (UBB30) which is currently not electrified. The construction works will not alter the existing townscape / landscape character along this section of the Proposed Development, but there will be some works affecting protected structures, and a conservation area / open space which will alter the townscape fabric and the local landscape character on a local level in some areas. The magnitude of change will be **low** and the effect in the Construction Phase will be **Slight / Moderate, Negative, Temporary / Short-term**.

15.5.1.1.3 Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)

The baseline landscape of Zone B is of **high sensitivity** due to its sensitive characteristics and the designation of much of this zone as High Amenity in the FCC Development Plan. In Zone C the works will involve introduction of OHLE to the full extents of the track as well as localised works, most notably including introductions of substations at Donabate, Rush and Lusk, Skerries South, Skerries North, and Balbriggan. The works will result in disruption and change to the landscape of the area in these locations.

The construction of substations has potential to result in removal, damage or loss of vegetation including mature hedgerows which provide a screening effect for surrounding areas. Proposed Construction Compounds and access routes will negatively impact on local amenity.

Works to Rogerstown Viaduct (UBB36) and Balbriggan Viaduct (UBB56) will result in modification to these protected structures, including some temporary removal of historic material to Rogerstown Viaduct (UBB36), and due to their prominent location in the landscape the associated effects will be relatively wide-ranging. Other changes throughout this zone are more modest and largely entail limited modification to bridges or track lowering to accommodate OHLE under bridges.

The construction works will give rise to moderate changes within the corridor of the railway which passes through a largely rural landscape including estuarine, coastal and small-scale urban areas. There will be localised construction of substations and access routes, removal of trees, hedgerows and other vegetation outside of the railway corridor. The Construction Phase involves demolition, excavation and construction works to sections of track, bridges, boundaries, roads, areas of private property, utilities, and drainage features, and construction of OHLE. The construction works will not alter the overall townscape character along this section of the Proposed Development, but they will include land acquisition and impacts on non-residential properties, impacts on protected structures, open space and mature trees which will alter the local landscape fabric and character in some areas. The magnitude of change to the overall townscape character will be **medium / high** and the effect in the Construction Phase will be **Moderate / Significant, Negative, Temporary / Short-term**.

15.5.1.1.4 Zone D: South of Gormanston Station (Fingal border) to Louth / Meath border

The baseline landscape of Zone D is of high sensitivity and comprises rural low-lying coastal plain and the sensitive landscape of the River Nanny estuary. In Zone D the works will involve introduction of OHLE to the full extents of the track as well as localised works, most notably including introductions of substations at Gormanston and Bettystown. The works will result in disruption and change to the landscape of the area in these locations including impacts on adjacent residential receptors. The construction of substations has potential to result in removal, damage or loss of vegetation including mature hedgerows which provide a screening effect for surrounding areas.

Works to Laytown Viaduct (UBB72) will result in temporary / Short-term disruption of a key amenity location at Laytown Strand and the High Amenity designation on the left bank of the River Nanny, west of the railway. Other changes throughout this zone are more modest and largely entail limited modification to bridges or track lowering to accommodate OHLE under bridges.

The construction works will give rise to moderate changes within the corridor of the railway which passes through a largely rural landscape including estuarine, coastal and urban fringe areas. There will be localised construction of substations and access routes, removal of trees, hedgerows and other vegetation outside of the railway corridor. The Construction Phase involves demolition, excavation and construction works to sections of track, bridges, boundaries, roads, areas of private property, utilities, and drainage features, and construction of OHLE. The construction works will not alter the overall townscape character along this section of the Proposed Development, but they will include land acquisition and impacts on non-residential properties, impacts on protected structures, open space and mature trees which will alter the local landscape fabric and the streetscape character in some areas. The magnitude of change to the overall townscape character will be **medium** and the effect in the Construction Phase will be **Moderate, Negative, Temporary / Short-term**.

15.5.1.1.5 Zone E: Drogheda MacBride Station and surrounds (boundary of Louth pprox.. 1.5km southeast of Drogheda MacBride Station)

The baseline landscape / townscape of Zone E is of **medium / high sensitivity**. The area is contained within the generally medium sensitivity urban townscape of Drogheda with some high sensitivity historic elements centered around the railway station complex. The works will occur mostly within an area of established high-intensity railway usage including substantial existing operational and maintenance infrastructure, however, works will also occur within adjacent residential areas and urban fringe agricultural areas.

There will be substantial works to areas surrounding Drogheda MacBride Station including replacement of the existing road overbridge at Railway Terrace / McGrath's Lane, raising of McGrath's Lane, provision of a temporary turning area and landtake from adjacent residential property, as well as widening of the railway bridge at Dublin Road with substantial loss of mature trees / woodland. There will also be works within the station complex including the span replacement of the station footbridge, construction of an additional platform, removal of established trees and operation of extensive Construction Compounds in adjacent carparks and agricultural land (zoned for future development).

The construction works will give rise to moderate changes within the corridor of the railway, which is generally enclosed as it passes through the townscape of Drogheda. The Construction Phase involves demolition, excavation and construction works to sections of track, bridges, boundaries, areas of private property, utilities, and drainage features, and construction of OHLE. The construction works will not alter the overall landscape / townscape character along this section of the Proposed Development, but they will include land acquisition and impacts on a protected structure. The magnitude of change to the overall townscape / landscape character will be **medium / high** and the effect in the Construction Phase will be **Moderate / Significant, Negative, Temporary / Short-term**.

15.5.1.2 Impacts on Landscape / Townscape Fabric and Visual Impacts

15.5.1.2.1 Architectural Conservation Areas (ACAs)

There will be impacts on the Architectural Conservation Areas in Malahide Historic Core and Central Balbriggan. Works compounds will be located within existing carparking at Malahide Station within the Malahide Historic Core ACA, and in carparking on the edge of the ACA at Balbriggan. Given the existing nature of the compound areas (car parking), there will be no impact on the key characteristics of the ACAs but the works will introduce additional visible elements and construction activity which will impact on the amenity of these areas. The sensitivity is **high / very high**. The magnitude of change will be **medium** and the effect in the Construction Phase on ACAs will be **Moderate, Negative, Temporary / Short-term**.

The works will result in a substantial impact on the ACA at Railway Terrace, Drogheda with the introduction of construction movement onto the street and activity in the vicinity with the loss of a swathe of woodland in the adjoining area which currently provides screening of the railway and Drogheda MacBride station complex. The sensitivity is **high**. The magnitude of change will be **high** and the effect in the Construction Phase on ACAs will be **Significant, Negative, Temporary / Short-term**.

There will be works within the Ardgillan Demesne ACA with changes to the existing railway and parapet modifications to Lady's Stairs (OBB54) pedestrian overbridge. There will be no impact on the key characteristics of the ACA but there will be the introduction of additional visible elements and construction activity which will impact on the amenity. The works will occur at the edge of the demesne and will be screened from the majority of the designation by dense tree planting along the west of the railway. Given the presence of the existing railway the change will be minimal. The magnitude of change will be **low** and the effect in the Construction Phase on this ACA will be **Slight, Negative, Temporary / Short-term**.

Due to distance and the presence of screening features in intervening areas, there will be no perceivable impact on ACAs at Hollybrook Road, Portmarnock (old Portmarnock), Newbridge Demesne, Portraine (Portrane) Demesne, Milverton Demesne and the centre of Skerries. The magnitude of change will be **negligible** and the effect in the Construction Phase on these ACAs will be **Imperceptible, Negative, Temporary / Short-term**.

15.5.1.2.2 Conservation Areas

Conservation areas are present at the River Tolka corridor, River Santry corridor and the linear park at Donaghmede. The works will involve changes to existing railway infrastructure within or on the periphery of these areas and there will be no direct changes to any valued features of the designations. The most substantial changes will involve upgrade works at the Howth Junction and Donaghmede Station. This is within the conservation area at Donaghmede, but at the far eastern end of the designation and the majority of the area will remain undisturbed. The sensitivity is **high** and the magnitude of change is **low**. The townscape / streetscape and visual effect of the Construction Phase on these conservation areas will be **Slight, Negative, Temporary / Short-term**.

15.5.1.2.3 Residential Conservation Areas

Works in proximity to residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St. Lawrence Road and Middle Third / Killester Avenue / Demesne will be minimal due to the presence of existing electrification to the nearest sections of railway. There will be no perceivable impacts on these designations. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Construction Phase on Residential Conservation Areas will be **Imperceptible, Neutral, Temporary / Short-term**.

15.5.1.2.4 Protected Structures

There will be no notable works to Clontarf Bridge (UBB5) (DCC RPS 880). The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Construction Phase on this protected structure will be **Imperceptible, Neutral, Temporary / Short-term**.

There will be works at Howth Junction and Donaghmede Station which will indirectly impact on the Former Signalman's House at the station (FCC RPS No. 788) The presence of construction works will have an impact on the amenity of the protected structure, but the works will be within the adjacent railway corridor and there will be no direct impacts. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Construction Phase on this protected structure will be **Slight / Moderate, Negative, Temporary / Short-term**.

The works will impact on the protected railway bridge structure at Grange / Maynetown (FCC RPS No. 919), through the introduction of a new railway bridge to the eastern side. The works will affect the landscape setting of the structure and screen views of the structure from the eastern side. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Construction Phase on this protected structure will be **Moderate, Negative, Temporary / Short-term**.

There will be no impact on the historic fabric of the structures at Malahide Railway Station and the rail bridge at Bissett's Strand. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Construction Phase on this protected structure will be **Imperceptible, Negative, Temporary / Short-term**.

There will be track modifications to Malahide Railway Viaduct (UBB30) which will include introduction of OHLE masts. There will be no changes to the historic fabric of the structure, but the masts will be a new prominent feature. The sensitivity is **high**. The magnitude of change will be **medium / high** and the effect in the Construction Phase on this protected structure will be **Moderate / Significant, Negative, Temporary / Short-term**.

There will be electrification works to tracks throughout Zone C with indirect impacts on the following protected structures:

- Railway bridge at Corballis Road, Kilcrea (UBB32) (FCC RPS No. 0502);
- Rail bridge at Dublin Road, Townparks (UBB50) (FCC RPS No. 231);
- Donabate Railway Station and Former Station Master's House (RPS No.'s. 511 and 510);
- Rail bridge at Rogerstown, Lusk (UBB37) (RPS No. 286);
- Two rail bridges at Barnageeragh Road (UBB53) (FCC RPS No.'s. 880 and 879);
- Croom House, Balbriggan (RPS No. 53);
- Former RNLI Boathouse (FCC RPS No. 35);
- Balbriggan Railway Station (FCC RPS No. 30);
- Chimney of Former Sea Mills Hosiery Factory (FCC RPS No. 19);
- Bridge at Bremore (UBB60) (FCC RPS No. 876);
- Railway bridge off Drogheda Road, Bremore (UBB61) (FCC RPS No. 12); and
- Knocknagin / Gormanston Viaduct (UBB65) (FCC RPS No. 1).

The works will mainly entail introduction of OHLE or operation of Construction Compounds within the vicinity of these protected structures. The works will represent the introduction of construction activity and additional visible elements and a potential reduction of the amenity provided by the structures but there will be no perceivable alterations to the fabric of the structures themselves. The sensitivity is **high**. The magnitude of change will be **low / medium** and the effect in the Construction Phase on these protected structures will be **Slight / Moderate, Negative, Temporary / Short-term**.

Works throughout Zone C will directly impact on the following protected structures:

- Rogerstown Viaduct (UBB36) (RPS No. 516);
- Road bridge at Rogerstown Lane, Rogerstown (OBB38) (RPS No. 287);
- Rush and Lusk Station (RPS No. 288);
- Road bridge at Tyrellstown (OBB44) (RPS No. 292);
- Road bridge L1285, Ballykea (OBB46) (RPS No. 246);
- Skerries Railway Station and Station Master's House (RPS No.'s. 191 and 192); and

- Ballbriggan Viaduct (UBB56) (RPS No. 36).

The works will mainly entail changes to parapets and/or track lowering works which will impact directly on these protected structures, as well as indirect effects from introduction of OHLE and operation of Construction Compounds within the vicinity. The works will represent the introduction of construction activity and additional visible elements and a potential reduction of amenity. The changes to the structures themselves will be minor alterations which will use materials and forms sympathetic to the historic fabric. The sensitivity is **high**. The magnitude of change will be **medium / high** and the effect in the Construction Phase on these protected structures will be **Moderate / Significant Negative, Temporary / Short-term**.

There will be electrification of tracks throughout Zone D with indirect impacts on the following protected structures:

- Knocknagin / Gormanston Viaduct (UBB65) (Fingal RPS No. 1 / Meath RPS No. 91,050);
- Laytown Station Masters House (Meath RPS No. 91,072); and
- Stameen (Meath RPS No. 90,723).

The works will mainly entail introduction of OHLE or operation of Construction Compounds within the vicinity of these protected structures. The works will introduce construction activity and additional visible elements and result in a potential reduction of the amenity provided by the structures, but there will be no perceivable alterations to the fabric of the structures themselves. The sensitivity is **high**. The magnitude of change will be **low / medium** and the effect in the Construction Phase on these protected structures will be **Slight / Moderate, Negative, Temporary / Short-term**.

There will be track modifications to Laytown Viaduct (UBB72) (Meath RPS No. 91,073) which will include introduction of OHLE masts. There will be minor changes to the historic fabric of the structure to allow support of the OHLE mast and the masts will be a new prominent feature. The sensitivity is **high**. The magnitude of change will be **medium / high** and the effect in the Construction Phase on Protected Structures will be **Moderate / Significant, Negative, Temporary / Short-term**.

There will be substantial works within Zone E at Drogheda MacBride Station (LCC RPS DB-055) which will impact on the following protected structures:

- Engine Shed (LCC RPS DB-395);
- Water Tower (LCC RPS DB-397);
- Parcel Office (LCC RPS DB-396);
- Boiler House (LCC RPS DB-398); and
- Toilet Building (LCC RPS DB-399).

Impacts will largely be indirect due to the presence of Construction Compounds, replacement of the 20th century pedestrian overbridge and activity within the vicinity of the station, but there will also be some changes to the historic canopy at Platform 1 where proposals include sensitive restoration works to the structure and cutbacks for the roof trusses supporting the canopy. There will also be works to bridges OBB80 and OBB80A stone masonry arch structures with single spans built in the 1800s to carry Railway Terrace / McGrath's Lane; although these structures are not protected structures and do not form part of the station curtilage, they are historic railway structures which are intervisible with the station and have some contribution to the character of the station context.

The sensitivity is **high**. The magnitude of change will be medium / high and the effect in the Construction Phase on the protected structures at Drogheda MacBride Station will be **Moderate, Negative, Temporary / Short-term**.

15.5.1.2.5 Amenity Designations

There will be numerous works occurring within designated High Amenity Areas in Fingal County. There will be works for electrification throughout this area as well as substation construction and compounds at Donabate, Skerries and Balbriggan, and various temporary utility diversion works. One of the Construction Compounds (CC-16100) for the turnback at Malahide will be located in an area of grassland to the east of Caves Strand which forms part of the High Amenity designation. The works will introduce construction activity to the railway and locations offline and will result in disruption of the landscape and visual amenity. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Construction Phase on this amenity designation will be **Moderate, Negative, Temporary / Short-term**.

The works will indirectly impact on Fairview Park through the presence of minor works at the Fairview Depot in areas adjacent to the designation. There will be a minimal increase in activity which has potential for a limited impact on the amenity of the designation. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Construction Phase on this amenity designation will be **Slight, Negative, Temporary / Short-term**.

There will be no perceivable impacts on Clontarf Golf Club due to the minimal changes proposed for the nearest section of railway and the dense screening planting along the intervening boundary. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Construction Phase on this amenity designation will be **Imperceptible, Neutral, Temporary / Short-term**.

There will be indirect construction impacts on the designated open Space at Carndonagh Lawn / St. Donagh's Road due to the renovation and upgrade of the Howth Junction and Donaghmede Station building which is adjacent to the space. Although not forming part of the designation, an adjoining area of amenity grass adjacent to the north of the station building will be used for temporary works. The works will impact on the amenity of the space at the closest portion (eastern end) but the majority of the space would remain unaffected. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Construction Phase on this amenity designation will be **Moderate, Negative, Temporary / Short-term**.

The construction of the Malahide Turnback will impact on the proposed and consented Broadmeadow Way Greenway which will run along the western side of the Malahide Viaduct, if the greenway has been constructed prior to commencement of the works. Access along the greenway will be maintained but there will be some temporary landtake to provide a working area for construction of the proposed modular reinforced earth wall which will roughly halve the width. There will be some resulting impact on the capacity of the greenway and the works will have a visual impact on users, however, the functionality of the greenway as an active travel corridor will be maintained. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Construction Phase on this amenity designation will be **Moderate, Negative, Temporary / Short-term**.

The electrification works to the adjacent railway and Rogerstown Viaduct (UBB36) will be visible in views from elevated sections of Rogerstown Park and will impact on the visual amenity of these views. The sensitivity is **medium**. The magnitude of change will be **low** and the effect in the Construction Phase on this amenity designation will be **Slight, Negative, Temporary / Short-term**.

There will be limited temporary works in Beaverstown Golf Course to divert existing overhead utility services. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Construction Phase on this amenity designation will be **Slight, Negative, Temporary**.

The siting of a Construction Compound at Skerries South, construction of a substation and works to the road bridge at Golf Links Road (OBB49) will indirectly impact on Skerries Golf Course. The works will be present in some views from the environs of the Golf Club building and from location on the course itself. Removal of hedgerow vegetation including mature trees on the east side of the railway will reduce the screening effect and be detrimental to the landscape character of the setting. The sensitivity is **high**. The magnitude of change will be **medium / high** and the effect in the Construction Phase on this amenity designation will be **Moderate / Significant, Negative, Temporary / Short-term**.

A Construction Compound (CC-30200) is proposed adjacent to the designated open space at The Old Ballast Pit, Skerries. The sensitivity is **low / medium**. The magnitude of change will be **low / medium** and the effect in the Construction Phase on this amenity designation will be **Slight / Moderate, Negative, Temporary / Short-term**.

There will be potential impact on the Public Realm Redevelopment for Quay Street and Environs, Balbriggan. The area planned for future redevelopment into an area of public realm centred around the River Bracken will be directly impacted by the proposed Construction Compound for the Balbriggan Viaduct works. Assuming that the area will have been redeveloped and operational as a public open space at the time of the Construction Phase, there will be substantial disruption of the amenity of this open space. This will include the introduction of construction activity, loss of access and potential loss of plantings within a substantial section of this open space. The sensitivity is **high**. The magnitude of change will be **high** and the effect in the Construction Phase on this amenity designation will be **Significant**, **Negative, Temporary / Short-term**.

A section of the High Amenity Area at Laytown, to the west of the railway and north of the River Nanny estuary, will accommodate a Construction Compound. The compound will be sited within an area of brownfield land and will not result in any substantial loss of hedgerow vegetation of any other key features. Other areas of the designation comprising dune areas to the north of the estuary will experience an indirect impact from works to Laytown Viaduct (UBB72). The sensitivity is **high**. The magnitude of change will be **high** and the effect in the Construction Phase on this amenity designation will be **Significant, Negative, Temporary / Short-term**.

The linewide works compound at Laytown Station adjoins an area of open space / riparian corridor to the west of the station carpark. It is not planned to remove any vegetation from this area however the works have potential to accidentally damage trees within the area and root zones which may extend out into the compound area. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Construction Phase on this amenity designation will be **Moderate, Negative, Temporary / Short-term**.

The designated open space on the north side of the railway, on the outskirts of Drogheda (adjacent to Cairnes Court), will not be impacted by the works due to the works being contained within the railway corridor and the presence of a dense band of vegetation along the intervening boundary. The sensitivity is **medium**. The magnitude of change will be **negligible** and the effect in the Construction Phase on this amenity designation will be **Imperceptible, Neutral, Temporary / Short-term**.

Construction Compound areas will be sited adjacent to MacBride Pitch and Putt and these are expected to impact on the amenity of the area through noise and visual disturbance. Although no direct changes to the course are proposed, the Construction Compound works have potential to impact on the hedgerow along the eastern boundary of the course through accidental damage to canopies or root zones. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Construction Phase on this amenity designation will be **Moderate, Negative, Temporary / Short-term**.

15.5.1.2.6 Tree Preservation Orders / Tree Preservation Objectives

There will be impacts on Trees of Special Amenity Value adjacent to Dublin Road railway bridge / St. Mary's Villas, Drogheda, from modification to the bridge, adjustments to adjacent embanked areas and clearance for construction access which will result in loss of trees. Trees with a TPO within the adjoining Bayview House property at Cromwell's Lane will not be impacted. The sensitivity is **high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Construction Phase on the Trees of Special Amenity Value will be **Significant, Negative, Temporary / Short-term**.

15.5.1.2.7 Preserved views / Scenic Views

The works to Malahide Viaduct (UBB30) and the adjoining railway embankment will be visible from preserved views at Bissetts Strand, Malahide, as well as various preserved views along the shore of Malahide Estuary. The construction activity for the new turnback and the introduction of new OHLE masts will be apparent, however, the presence of existing OHLE on the section of track south of the viaduct as well as the presence of existing boat masts in the Malahide Marina environs creates a precedent for vertical features in the landscape. In addition, although the estuary has scenic qualities the existing viaduct is of modern utilitarian construction with minimal aesthetic appeal. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Construction Phase these preserved views will be **Moderate, Negative, Temporary / Short-term**.

A preserved view exists at Station Road R128 at Effelstown, in proximity to Rush and Lusk Station. The baseline of this view includes the existing station entrance road, overhead service poles, lighting columns, areas of commercial development and additional visible elements along the road and around the station. A native hedgerow is present along the route to the east of the existing station entrance road. The works to the railway corridor will be well screened by existing vegetation. The existing entrance road will be realigned with the junction to the R128 moved east and these works will be clearly visible from the road and will result in the loss of a section of hedgerow but will not result in any other substantial change to the views along the road. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Construction Phase on this preserved view will be **Moderate, Negative, Temporary / Short-term**.

Preserved views along the unnamed road / Golf Links Road in Loughland; Ballaghstown Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; and the beach front in Skerries will have minimal intervisibility with the works due to vegetation, landform and other intervening landscape features. The sensitivity is **high** and the magnitude of change is **low**. The landscape / townscape and visual effect of the Construction Phase on these preserved views will be **Slight, Negative, Temporary / Short-term**.

The R127 Skerries Road between Skerries and Balbriggan includes designated preserved views. The works will be present along a considerable length of this protected view where the railway will be electrified parapet modifications to the Lady's Stairs (OBB54) are required. The works will be extensive but not overbearing on the views from the road and the attention of receptors using the road are expected to be generally directed out towards the sea rather than inland towards the railway. Users of the railway could also fall under this designation and the works could appear in the foreground of the views but in the context of existing railway infrastructure. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Construction Phase on these preserved views will be **Moderate, Negative, Temporary / Short-term**.

The electrification works will be visible from the preserved view at the Bower in Balbriggan. This will introduce construction activity and additional visible elements into a view that already includes the railway and some additional visible elements in the form of utility poles, lighting etc. which form part of the urban fringe setting. It is expected the attention of receptors using the road are more likely to be directed towards the sea views to the north than towards the railway. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Construction Phase on these preserved views will be **Moderate, Negative, Temporary / Short-term**.

The construction works for Balbriggan Substation will be visible from the preserved view at the R132 Bremore. The works will include removal of a section of hedgerow along the eastern side of the road, construction of a new access route and introduction of the substation in an adjacent field. The works will interfere with the sea views to the east. The sensitivity is **high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Construction Phase on these preserved views will be **Significant, Negative, Temporary / Short-term**.

The preserved view from Laytown Strand (Meath Ref. No. 65) looking northwards along shore will not be affected. The works will be present along the railway to the west but will not be visible in northward views. The sensitivity is **high** and the magnitude of change is **negligible**. The landscape / townscape and visual effect of the Construction Phase on these preserved views will be **Imperceptible, Neutral, Temporary / Short-term**. Other protected views in Meath, including Nos. 68, 69, 70 and 71, are distant and will not be perceivably affected by the proposals.

15.5.1.2.8 Properties

Direct impacts on residential properties will include a single property at the eastern end of McGrath's Lane (PR23), Drogheda where there will be land take from a landscaped driveway leading to the house for replacement of the overbridge OBB80/80A/80B and associated regrading works to McGrath's Lane.

This residential property will undergo loss of landscaped areas, introduction of visible construction activity and impacts on boundaries and plantings. An alternative access route to the property will be provided for the duration of the works via a new road link to Marsh Road (R150). The sensitivity is **medium** / **high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Construction Phase on this residential property with land acquisition will be **Significant, Negative, Temporary / Short-term**.

There will also be direct impacts on a residential property at St. Mary's Villas (PR28) for works to the lane and adjacent tracks. There will be loss of garden trees and other vegetation, boundaries and loss of garden area. The loss of screening vegetation along the boundary with the railway will expose the property to railway works and operations. The sensitivity is **medium** / **high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Construction Phase on this residential property with land acquisition will be **Significant, Negative, Temporary / Short-term**.

There will also be direct impacts on residential properties south of Gormanston Station (PR13) for works to the adjacent platform / tracks. There will be loss of boundary trees / hedgerow separating the properties from the railway and loss of garden area. The loss of screening vegetation along the boundary with the railway will expose the property to railway works and operations. The sensitivity is **medium** / **high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Construction Phase on these residential properties with land acquisition will be **Significant, Negative, Temporary / Short-term**.

The works to McGrath Lane will also impact on a residential property (PR22) to the west end of the lane, which will not experience land take but will have its access temporarily severed, associated planting removed and a replacement access route provided via the new road link to Marsh Road (R150). There will also be a reduction in visual amenity due to the proximity of the works to the property. The sensitivity is **medium** / **high** and the magnitude of change is **medium / high**. The landscape / townscape and visual effect of the Construction Phase on this residential property will be **Moderate / Significant, Negative, Temporary / Short-term**.

Generally, for residential properties viewing and fronting the works, there will be a partial intrusion of the development in the views, possibly with the introduction of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity. For urban, suburban and rural properties viewing and fronting the works within the existing railway corridor (excluding those adjacent to key offline works) the sensitivity is **medium / high** and the magnitude of change is **medium**. The visual effect of the Construction Phase on these properties will be **Moderate, Negative, Temporary / Short-term**.

There will be more notable disturbance and visual effects on residential properties adjacent to the following locations where there will be key offline works including access routes. These are illustrated on Figure 15.2 in Volume 3 of this EIAR, and the associated reference codes (e.g. PR1, PR2, etc.) provided in the list below:

- Howth Junction and Donaghmore Station west entrance (Ref: PR1);
- New turnback Construction Compound adjacent to Bissett's Strand and construction of new modular reinforced earth wall, with an approximate height of between 1 and 3malong

the railway embankment will result in visual impacts on a small number of the neighbouring properties on Bissett's Strand (Ref: PR2 and PR3);
- Rush and Lusk Substation (Ref: PR4);
- Skerries South Substation (Ref: PR5 and PR6);
- Skerries North Substation, and access track (Ref:PR7 and PR8);
- Works at properties off Barnageeragh Road, northwest of Skerries (Ref:PR9 and PR10);
- Balbriggan town (viaduct compound) (Ref:PR11 and PR12);
- Gormanston Station including UTX Construction Compound for utility diversion (Ref:PR13 and PR14);
- Gormanston Substation (Ref:PR15);
- Laytown Viaduct (Ref:PR16);
- Bettystown Substation, including removal of trees which provide a buffer between adjacent residential areas (Ref:PR17);
- Under Track Crossings (UTX) Compound at Park Wood / Park Grove (Ref:PR18 and PR19);
- Works adjacent to Acorn Way (Ref: PR20, PR21);
- Works to Railway Terrace / McGrath Lane for OBB80a/80b/80c bridge works and provision of temporary turning area (PR21, PR22, PR23 and PR24); and
- Drogheda MacBride Station / Dublin Road rail bridge (new structures, station platform and lighting and effects from trees removed during construction) (Ref: PR24, PR25, PR26, PR27, PR28).

The works will involve the presence of construction activity, demolition, excavation, removal of trees and other vegetation and introduction of new utilitarian structures into the views. In the case of substation construction most of the disruptions will come from the civil works, whereas the installation of the equipment and the tests will be less disruptive for the residents. The sensitivity is **medium / high** and the magnitude of change is **medium / high**. The visual effect of the Construction Phase on these properties will be **Moderate / Significant, Negative, Temporary / Short-term**.

There is also potential for direct impacts on residential properties from utility diversions. The construction is likely to be of temporary duration. Impacts may include excavation, undertrack drilling, removal of garden vegetation, removal of hardscape and removal of boundaries. Specific utility diversions have been described in Chapter 4 (Description of the Proposed Development) and assessed in Chapter 18 (Material Assets: Utilities) in Volume 2 of this EIAR. A set of figures including existing utilities (Figures 18.1) and proposed utility diversions (Figures 18.2) are presented in Volume 3A of this EIAR. Direct temporary impacts on residential properties have potential to occur at the following chainages:

- 19+300 (Semple Woods);
- 23+700 (Property / properties north of R128);
- 24+200 (Property on Horestown Road, Kingstown);
- 26+000 (Property / properties on Featherbed Lane, Haystown);
- 26+100 (Property / properties on Featherbed Lane, Haystown);
- 26+800 (Property / properties west of Featherbed Lane, Ballykea);
- 27+000 (Property / properties south of Featherbed Road, Ballykea);
- 27+100 (Properties on Baldongan Road / Featherbed Road, Ballykea);
- 32+300 (Property / properties on Barnageeragh Road, Strifeland);

- 32+500 (Property / properties northwest of Barnageeragh Road, Strifeland);
- 34+900 (Property / properties off Pinewood Green Road, Barnageeragh, Strifeland);
- 35+300 (Properties on Gibbons Terrace and Skerries Road / Back Road, Balbriggan);
- 36+400 (Property / properties on Bath Road, Balbriggan);
- 39+800 (Property / properties south of Gormanston Station);
- 45+200 (Property / properties on Alverno Court, Laytown);
- 51+500 (Property / properties on Weaver's Way, Drogheda);
- 51+500 (Property / properties at Newtown View, Drogheda); and
- 51+700 (Property on McGrath's Lane).

The sensitivity is **medium / high** and the magnitude of change is **medium / high**. The visual effect of the Construction Phase on these properties will be **Moderate / Significant, Negative, Temporary**.

There will be various direct impacts to non-residential properties in the form of land take, introduction of structures and access routes, introduction of visible construction activity and impacts on boundaries and plantings. The sensitivity is **medium** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Construction Phase on non-residential property with land acquisition will be **Moderate, Negative, Temporary / Short-term**.

The majority of the works will occur within the existing railway corridor and in many cases the visual effects will be reduced by trackside vegetation, landform / cuttings, or adjacent built form. Where views of the works to the railway corridor will be seen they will be experienced in the context of an operational railway with existing visual elements, and regularly occurring movement and activity.

15.5.1.2.9 Trees, hedgerows and plantings

The Proposed Development will require removal of existing trees, hedgerows and plantings at a number of locations along the scheme, most notably at:

- Clongriffin Turnback and station Works Compound;
- Donabate Substation access route;
- Rush and Lusk Substation and access route;
- Skerries South Substation and access route;
- Skerries North Substation and access route;
- Golf Links Road Skerries UTX Compound;
- UTX Compound at Park Wood / Park Grove;
- Dublin Road bridge, Drogheda / areas to north of Railway Terrace;
- Areas along St. Mary's Villas, Drogheda; and
- Works to Railway Terrace / McGraths Lane for OBB80/80A/80B.

Removal will have occurred to allow construction of temporary or permanent access routes, Construction Compounds, sidings, substations, bridges, realigned track, and track lowering works. Vegetation will also be removed and tree canopies pruned to allow safe operation of OHLE throughout the railway. Although no further major vegetation clearance will occur as part of the Operational Phase the effects from loss of vegetation removed during the Construction Phase will continue into the Operational Phase.

The sensitivity is **high** and the magnitude of change is locally **high**. The landscape / townscape and visual effect of the Construction Phase on trees, hedgerows and plantings will be **Significant, Negative, Temporary / Short-term**.

15.5.1.3 Summary of Construction Phase Impacts

The summary of the landscape and visual impact assessment for the Construction Phase of the Proposed Development is set out in Table 15-6.

Table 15-6 Summary of Potential Construction Phase Effects

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Landscape, Townscape and Streetscape Character				
Zone A: North of Connolly Station to Howth Junction and Donaghmede Station		Medium / High	Low	Slight / Moderate, Negative, Temporary / Short-term
Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct		Medium / High	Low	Slight / Moderate, Negative, Temporary / Short-term
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)		High	Medium / High	Moderate / Significant Negative, Temporary / Short-term
Zone D: South of Gormanston Station (Fingal border) to Louth / Meath border		High	Medium	Moderate, Negative, Temporary / Short-term
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)		Medium / High	Medium / High	Moderate / Significant Negative, Temporary / Short-term
Landscape, Townscape and Streetscape Characteristics and Visual Impacts				
Architectural Conservation Areas (ACAs)	Hollybrook Road	High	Negligible	Imperceptible, Negative Temporary / Short-term
	Portmarnock (old Portmarnock); Newbridge Demesne; Portraine	Very High	Negligible	Imperceptible, Negative

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	(Portrane) Demesne; Milverton Demesne; centre of Skerries.			Temporary / Short-term
	Central Malahide	Very High	Medium	Moderate, Negative Temporary / Short-term
	Ardgillan Demesne	Very High	Low	Slight, Negative Temporary / Short-term
	Central Balbriggan.	High	Medium	Moderate, Negative Temporary / Short-term
	No.'s 1 – 6 Railway Terrace	High	High	Significant, Negative Temporary / Short-term
Conservation Areas	River Tolka corridor, River Santry corridor, linear park at Donaghmede	High	Low	Slight, Negative, Temporary / Short-term
Residential Conservation Areas	Residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St. Lawrence Road and Middle Third / Killester Avenue / Demesne	High	Negligible	Imperceptible, Neutral, Temporary / Short-term
Protected structures	Clontarf Bridge (UBB5) (DCC RPS 880)	High	Negligible	Imperceptible, Neutral, Temporary / Short-term
	Former Signalman's House at Howth Junction and Donaghmede Station (FCC RPS No. 788)	High	Low / Medium	Slight / Moderate, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Rail bridge at Grange / Maynetown (UBB19) (FCC RPS No. 919)	High	Medium	Moderate, Negative, Temporary / Short-term
	Malahide Railway Station (FCC RPS No. 388); and railway bridge over Bissett's Strand, Malahide (UBB29) (FCC RPS No. 423).	High	Negligible	Imperceptible Negative, Temporary / Short-term
	Malahide Railway Viaduct (UBB30) (FCC RPS No. 420)	High	Medium / High	Moderate / Significant Negative, Temporary / Short-term
	<u>Zone C - Indirect impacts:</u> Railway bridge at Corballis Road, Kilcrea (UBB32) (FCC RPS No. 502; rail bridge at Dublin Road, Townparks (UBB50) (FCC RPS No. 231); Donabate Railway Station and Former Station Master's House (RPS No.'s. 511 and 510); rail bridge at Rogerstown, Lusk (UBB37); two rail bridges at Barnageeragh Road (UBB53) (FCC RPS No.'s. 880 and 879); Croom House, Balbriggan (RPS No. 53); Former RNLI Boathouse (FCC RPS No. 35); Balbriggan Railway Station (FCC RPS No. 30); Chimney of Former Sea Mills Hosiery Factory (FCC RPS No. 19); Bridge at Bremore	High	Low / Medium	Slight / Moderate Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	(UBB60) (FCC RPS No. 876); railway bridge off Drogheda Road, Bremore (UBB61) (FCC RPS No. 12); and Knocknagin / Gormanston Viaduct (UBB65) (FCC RPS No. 1).			
	<u>Zone C - Direct impacts to structures:</u> Rogerstown Viaduct (UBB36) (RPS No. 516); road bridge at Rogerstown Lane, Rogerstown (OBB38) (RPS No. 287); (RPS No. 286); Rush and Lusk Station (RPS No. 288); road bridge at Tyrellstown (OBB44) (RPS No. 292); road bridge L1285, Ballykea (OBB46) (RPS No. 246); Skerries Railway Station and Station Master's House (RPS No.'s. 191 and 192); and Ballbriggan Viaduct (UBB56) (RPS No. 36).	High	Medium / High	Moderate / Significant Negative, Temporary / Short-term
	<u>Zone D - Indirect impacts</u> Knocknagin / Gormanston Viaduct (UBB65) (Meath RPS No. 91,050); Laytown Station Masters House (Meath RPS No. 91,072) and Stameen (Meath RPS No. 90,723).	High	Low / Medium	Slight / Moderate Negative, Temporary / Short-term
	<u>Zone D – Direct impacts to structures:</u>		Medium / High	Moderate / Significant Negative,

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Laytown Viaduct (UBB72) (Meath RPS No. 91,073)			Temporary / Short-term
	<u>Zone E</u> Drogheda MacBride Station including: Engine Shed (LCC RPS DB-395); Water Tower (LCC RPS DB-397); Parcel Office (LCC RPS DB-396); Boiler House (LCC RPS DB-398); and Toilet Building (LCC RPS DB-399).	High	Medium / High	Moderate Negative, Temporary / Short-term
Amenity Designations	Fingal High Amenity Areas	High	Medium	Moderate, Negative, Temporary / Short-term
	Fairview Park	High	Low	Slight Negative Temporary / Short-term
	Clontarf Golf Club	High	Negligible	Imperceptible Neutral Temporary / Short-term
	Open Space at Carndonagh Lawn / St. Donagh's Road	High	Medium	Moderate, Negative, Temporary / Short-term
	Broadmeadow Way Greenway	High	Medium	Moderate, Negative, Temporary / Short-term
	Rogerstown Park	Medium	Low	Slight Negative, Temporary / Short-term
	Beaverstown Golf Course	High	Low	Slight, Negative, Temporary

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Skerries Golf Course	High	Medium / High	Moderate / Significant Negative, Temporary / Short-term
	Old Ballast Pit	Low / Medium	Low / Medium	Slight / Moderate Negative, Temporary / Short-term
	Public Realm Redevelopment, Quay Street and Environs, Balbriggan	High	High	Significant, Negative, Temporary / Short-term
	Meath High Amenity Area at Laytown	High	High	Significant, Negative, Temporary / Short-term
	Open space / riparian corridor west of Laytown Station	High	Medium	Moderate, Negative, Temporary / Short-term
	Open space designation north of railway on outskirts of Drogheda (adjacent to Cairnes Court)	Medium	Negligible	Imperceptible, Neutral, Temporary / Short-term
	MacBride Pitch and Putt	Medium / High	Medium	Moderate, Negative, Temporary / Short-term
Tree Preservation Orders / tree Protection Objectives	Trees of Special Amenity Value at Dublin Road Rail Bridge, Drogheda	High	High	Significant, Negative, Temporary / Short-term
Preserved views / Scenic Views etc.	Bissetts Strand, Malahide	High	Medium	Moderate, Negative, Temporary / Short-term
	Malahide Estuary	High	Medium	Moderate, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Station Road R128 at Effelstown, in proximity to Rush and Lusk Station	High	Medium	Moderate, Negative, Temporary / Short-term
	Unnamed road / Golf Links Road in Loughland; Ballaghstown Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; the beach front in Skerries	High	Negligible / Low	Imperceptible / Slight, Negative, Temporary / Short-term
	R127 Skerries Road / Railway to Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term
	The Bower, Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term
	R132 Bremore	High	High	Significant, Negative, Temporary / Short-term
	Laytown Strand (looking northwards along shore)	High	Negligible	Imperceptible, Neutral, Temporary / Short-term
Properties	Residential properties impacted by land acquisition during the Construction Phase	Medium / High	High	Significant, Negative, Temporary / Short-term
	Residential property west end McGrath's Lane with impacts on access / planting during the Construction Phase	Medium / High	High	Moderate / Significant, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Residential properties impacted by utility diversions	Medium / High	Medium / High	Moderate / Significant, Negative, Temporary
	Non-residential properties with land acquisition during Construction Phase	Medium	High	Moderate, Negative, Temporary / Short-term
	Urban, suburban and rural properties along, fronting and viewing the Proposed Development, excluding those adjacent to key offline works	Medium / High	Medium	Moderate, Negative, Temporary / Short-term
	Urban, suburban and rural properties along, fronting and viewing key offline works	Medium / High	High	Moderate / Significant, Negative, Temporary / Short-term
Trees and Vegetation		High	High	Significant, Negative Temporary / Short-term

15.5.2 Potential Operational Impacts

Potential operational effects are likely to result from the following impacts:

- Residual effects on landscape and visual character and on designated landscape and visual aspects, including loss of trees and hedgerows;
- Visual intrusion on properties and amenities from new elevated structures, OHLE, signalling, bridges, embankments, retaining walls, fences, barriers, gantries;
- Visual intrusion on properties and amenities from new structures, fencing and OHLE associated with the electrification of the rail line;
- Effects from new elevated road lighting and illumination from traffic lights; and
- Effects arising on sites of biodiversity and cultural heritage significance.

15.5.2.1.1 Zone A - North of Connolly Station to Howth Junction and Donaghmede Station

The baseline townscape of Zone A is of **medium / high sensitivity**. As this section of railway is already electrified the proposals will be limited to minimal changes at Fairview Depot. The proposals will not alter the overall townscape character along this section of the Proposed Development.

The magnitude of change on the overall townscape character will be **low** and the effect in the Operational Phase will be **Slight, Negative, Long-term**.

15.5.2.1.2 Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct

The baseline townscape / landscape of Zone B is of **medium / high sensitivity**. In Zone B the proposals will involve minimal change to the majority of the railway, which is currently electrified. The key changes to the landscape / townscape will be the provision of an upgraded station building at Howth Junction and Donaghmede Station, with new lighting, a new turnback at Clongriffin Station, a new turnback and modular reinforced earth wall on the western side of Malahide Viaduct embankment and OHLE to Malahide Viaduct (UBB30) which is currently not electrified. The proposals will be experienced in the context of an existing operational railway and they will not alter the existing townscape / landscape character in this zone. The magnitude of change will be **low**, and the effect in the Operational Phase will be **Slight / Moderate, Negative, Long-term**.

15.5.2.1.3 Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)

The baseline landscape of Zone B is of **high sensitivity** due to its sensitive characteristics and the designation of much of this zone as High Amenity in the FCC Development Plan. In Zone C the proposals will involve provision of OHLE to the full extents of the track as well as localised changes, most notably including the provision of substations at Donabate, Rush and Lusk, Skerries South, Skerries North, and Balbriggan. The introduction of these utilitarian structures will result in localised degradation to the landscape character in those locations. There will be continuing effects from the loss of vegetation removed or disturbed during the Construction Phase, including mature hedgerows which provide a screening effect for surrounding areas.

Proposals for Rogerstown Viaduct (UBB36) and Balbriggan Viaduct (UBB56) will result in modification to these protected structures to provide OHLE and due to their prominent location in the landscape the associated effects will be relatively wide-ranging. Other changes throughout this zone are more modest and largely entail limited modification to bridges or track lowering to accommodate OHLE under bridges.

The proposals will not alter the overall landscape character in this zone, but they will include permanent land acquisition from non-residential properties, modest impacts on protected structures, open space and continuing effects from loss of removed mature trees which will alter the local landscape fabric and degrade the local landscape character in these areas. The magnitude of change to the landscape / townscape will be **medium / high** and effect in the Operational Phase will be **Moderate / Significant, Negative, Long-term**.

15.5.2.1.4 Zone D: South of Gormanston Station (Fingal border) to Louth / Meath border

The baseline landscape of Zone D is of **high sensitivity** and comprises rural low-lying coastal plain and the sensitive landscape of the River Nanny estuary. In Zone D the proposals will involve the provision of OHLE to the full extents of the track as well as localised prominent features, most notably the provision of substations at Gormanston and Bettystown. The proposals will result in degradation to the local landscape character in these locations including impacts on adjacent residential receptors. There will be continuing effects from the loss of vegetation removed or damaged during the Construction Phase, including mature hedgerows which provide a screening effect for surrounding areas.

Proposals to Laytown Viaduct (UBB72) will result in some further intensification of existing railway infrastructure with a modest impact on the local character in a key amenity location at Laytown Strand. Other changes throughout this zone are more modest and largely entail limited modification to bridges or track lowering to accommodate OHLE under bridges. Although the LCA covering much of this area has a noted sensitivity to overhead cables and substations, the OHLE and substations in the Proposed Development are associated with the existing railway infrastructure and not similar to high-voltage overhead transmission lines and sub-stations. The proposed sub-stations are all enclosed in typically single-storey buildings. The cables, which are directly associated with the railway lines, are low, being typically c.5m above the tracks.

The proposals will give rise to moderate changes within the corridor of the railway but there will be localised permanent impacts from the provision of substations and access routes, and continuing effects from removal of trees, hedgerows and other vegetation outside of the railway corridor during construction. The proposals will not alter the overall landscape character along this section of the Proposed Development, but they will include localised impacts which will alter the local landscape fabric and character in some areas. The magnitude of change to the landscape / townscape will be **medium** and the effect in the Operational Phase will be **Moderate, Negative, Long-term**.

15.5.2.1.5 Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)

The baseline landscape / townscape of Zone E is of **medium / high sensitivity**. The area is contained within the generally medium sensitivity urban townscape of Drogheda with some high sensitivity historic elements centered around the railway station complex. The proposals will occur mostly within an area of established high-intensity railway usage including substantial existing operational and maintenance infrastructure.

There will be changes to areas surrounding Drogheda MacBride Station including modifications to an existing road overbridge (OBB80/80A/80B) at Railway Terrace / McGrath's Lane including land acquisition from residential properties, and provision of a new platform with associated new lighting, at the widened Dublin Road railway bridge. The changes will form part of the trend of change of intensification of the railway station complex and the character of the station area will not be affected. However, there will be continued localised effects from the loss of trees and hedgerow removed during the construction phase at Dublin Road (Trees of Special Amenity Value) and at McGrath's Lane. The proposals will give rise to moderate changes within the corridor of the railway, which is generally enclosed as it passes through the townscape of Drogheda.

The proposals will not alter the overall landscape / townscape character in this zone, but they will include land acquisition, impacts on a protected structure (Drogheda MacBride Station building) and continued effects from loss of high value trees during construction. The magnitude of change to the townscape / landscape will be **medium / high** and the effect in the Operational Phase will be **Moderate / Significant, Negative, Long-term**.

15.5.2.2 Impacts on Landscape / Townscape Fabric and Visual Impacts

15.5.2.2.1 Architectural Conservation Areas (ACAs)

There will be minimal Operational Phase impacts on Architectural Conservation Areas in Central Malahide due to the presence of screening elements between these areas and the most notable changes. Some signalling infrastructure will be apparent from the northwest corner (see Photomontage M2, Figure 15.3.8.2 in Volume 3B of this EIAR), but this will not impact on the character of the ACA. The sensitivity is **high / very high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on ACAs will be **Imperceptible, Neutral, Long-term**.

There will be continuing effects on the ACA at Railway Terrace with the loss of a swathe of woodland (Refer to Photomontage D9, Figure 15.3.59.2 in Volume 3B of this EIAR) in the adjoining area which will have been removed in the Construction Phase. This will result in a loss of screening of the railway / Drogheda MacBride Station complex, and an impact on the sylvan setting. There will be some visibility of additional lighting provided to the new station platform at the Dublin Road overbridge. The sensitivity is **high**. The magnitude of change will be **high** and the effect in the Operational Phase on this ACA will be **Significant, Negative, Long-term**.

The provision of OHLE to Balbriggan Viaduct (UBB56) will have an indirect impact on the ACA in central Balbriggan (refer to Photomontage B3, Figure 15.3.33.2 in Volume 3B of this EIAR). The sensitivity is high / very high. The magnitude of change will be **low** and the effect in the Operational Phase on this ACA will be **Slight, Negative, Long-term**.

The proposals within the Ardgillan Demesne ACA include provision of OHLE and parapet modifications to Lady's Stairs (OBB54) pedestrian overbridge (Refer to Photomontage AD1, Figure 15.3.30.2 in Volume 3B of this EIAR). There will be no impact on the key characteristics of the ACA, but there will be a modest increase in additional visible elements which will impact on the landscape and visual amenity. The proposals will occur at the edge of the demesne and will be screened from the majority of the designation by dense tree planting along the west of the railway. Given the presence of the existing railway the change will be minimal. The magnitude of change will be **low** and the effect in the Operational Phase on this ACA will be **Slight, Negative, Long-term**.

Due to distance and the presence of screening features in intervening areas, there will be no perceivable impact on ACAs at Hollybrook Road, Portmarnock (old Portmarnock), Newbridge Demesne, Portraine (Portrane) Demesne, Milverton Demesne and centre of Skerries. The magnitude of change will be **negligible** and the effect in the Operational Phase on these ACAs will be **Imperceptible, Neutral, Long-term**.

15.5.2.2.2 Conservation Areas

Conservation areas are present at the River Tolka corridor, River Santry corridor and linear park at Donaghmede. The proposals will involve changes to existing railway infrastructure within or on the periphery of these areas and there will be no direct changes to any valued features of the designations. The most substantial changes will be the upgrade of the Howth Junction and Donaghmede Station (Refer to Photomontages HD1 to HD3, Figures 15.3.1.2 and 15.3.3.1 in Volume 3B of this EIAR) building within the conservation area at Donaghmede, but the building will be of similar appearance to the existing.

The sensitivity is **high** and the magnitude of change is **low**. The townscape / streetscape and visual effect of the Operational Phase on these conservation areas will be **Slight, Neutral, Long-term**.

15.5.2.2.3 Residential Conservation Areas

Proposals in proximity to residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St. Lawrence Road and Middle Third / Killester Avenue / Demesne will be minimal due to the presence of existing electrification to the nearest sections of railway. There will be no perceivable impacts on these designations. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on Residential Conservation Areas will be **Imperceptible, Neutral, Long-term**.

15.5.2.2.4 Protected Structures

There will be no notable works to Clontarf Bridge (UBB5) (DCC RPS 880). The sensitivity is **high**. The magnitude of change will be negligible and the effect in the Operational Phase on this protected structure will be **Imperceptible, Neutral, Long-term**.

There will be no notable Operational Phase impacts on the Former Signalman's House (FCC RPS No. 788). The changes at the adjacent station will not impact on the character of the context or visual amenity of the structure. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on this protected structure will be **Imperceptible, Neutral, Long-term**.

There will be provision of a new railway bridge to the eastern side of the protected bridge structure at Grange / Maynetown (UBB19) (FCC RPS No. 919) (Refer to Photomontage CL2, Figure 15.3.6.2 in Volume 3B of this EIAR) which will not impact on the historic fabric of the structure, but will change the setting and will screen views from the east. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Operational Phase on this protected structure will be **Moderate, Negative, Long-term**.

There will be no direct impact on the historic fabric of the structures of Malahide Railway Station and the rail bridge at Bissett's Strand, Malahide. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on this protected structure will be **Imperceptible, Neutral, Long-term**.

There will be provision of OHLE to Malahide Railway Viaduct (UBB30). There will be no changes to the historic fabric of the structure. The masts will be a new prominent feature (Refer to Photomontage M8, Figure 15.3.14.1 in Volume 3B of this EIAR) but will not be uncharacteristic given the railway context and utilitarian nature of the structure which includes modern interventions. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Operational Phase on this protected structure will be **Moderate, Negative, Long-term**.

There will be electrification proposals to tracks throughout Zone C, with indirect impacts on the following protected structures:

- Railway bridge at Corballis Road, Kilcrea (FCC RPS No. 502;
- Rail bridge at Dublin Road, Townparks (FCC RPS No. 231);

- Donabate Railway Station and Former Station Master's House (RPS No.'s. 511 and 510) (Refer to Photomontage DO3);
- Rail bridge at Rogerstown, Lusk (RPS No. 286);
- Two rail bridges at Barnageeragh Road (FCC RPS No.'s. 880 and 879);
- Croom House, Balbriggan (RPS No. 53);
- Former RNLI Boathouse (FCC RPS No. 35);
- Balbriggan Railway Station (FCC RPS No. 30);
- Chimney of Former Sea Mills Hosiery Factory (FCC RPS No. 19);
- Bridge at Bremore (FCC RPS No. 876);
- Railway bridge off Drogheda Road, Bremore (FCC RPS No. 12); and
- Knocknagin / Gormanston Viaduct (UBB65) (FCC RPS No. 1).

The proposals will mainly entail provision of OHLE onto bridges or in the proximity of other structures, but there will be no perceivable alterations to the fabric of the structures themselves. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Operational Phase on these protected structures will be **Slight, Negative, Long-term**.

Proposals throughout Zone C will directly impact on the following protected structures:

- Rogerstown Viaduct (UBB36) (RPS No. 516) (Refer to Photomontages R1 and R2, Figures 15.3.19.2 and 15.3.20.2 in Volume 3B of this EIAR);
- Road bridge at Rogerstown Lane, Rogerstown (RPS No. 287) (Refer to Photomontage RL1, Figure 15.3.21.2 in Volume 3B of this EIAR);
- Rush and Lusk Station (RPS No. 288) (Refer to Photomontage RL2, Figure 15.3.22.2 in Volume 3B of this EIAR);
- Road bridge at Tyrrelstown (RPS No. 292);
- Road bridge L1285, Ballykea (RPS no. 246) (Refer to Photomontage BA1, Figure 15.3.23.2 in Volume 3B of this EIAR);
- Skerries Railway Station and Station Master's House (RPS Nos. 191 and 192); and
- Ballbriggan Viaduct (UBB56) (RPS No. 36) (Refer to Photomontage B2 and B3, Figure 15.3.32.2 in Volume 3B of this EIAR).

The proposals will mainly entail changes to parapets and/or track lowering proposals which will impact directly on these protected structures, as well as indirect effects from provision of OHLE. The proposals will represent the provision of additional visible elements and potential reduction of amenity. The changes to the structures themselves will be minor alterations which will use materials and forms sympathetic to the historic fabric. The sensitivity is **high**. The magnitude of change will be **low / medium** and the effect in the Operational Phase on these protected structures will be **Slight / Moderate, Negative, Long-term**.

There will be electrification of tracks throughout Zone D with indirect impacts on the following protected structures:

- Knocknagin / Gormanston Viaduct (UBB65) (Meath RPS No. 91,050) (Refer to Photomontage G1, Figure 15.3.36.2 in Volume 3B of this EIAR);
- Laytown Station Masters House (Meath RPS No. 91,072); and
- Stameen (Meath RPS No. 90,723).

The proposals will mainly entail provision of OHLE onto / within the vicinity of these protected structures. The proposals will introduce additional visible elements and result in a potential reduction of the amenity provided by the structures, but there will be no perceivable alterations to the fabric of the structures themselves. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Operational Phase on these protected structures will be **Slight, Negative, Long-term**.

There will be track modifications to Laytown Viaduct (UBB72) (Meath RPS No. 91,073) (Refer to Photomontage L1 to L4, Figures 15.3.41.2 and 15.3.44.2) in Volume 3B of this EIAR) which will include provision of OHLE masts. There will be minor changes to the historic fabric of the structure to allow support of the OHLE mast and the masts will be a new prominent feature. The sensitivity is **high**. The magnitude of change will be **low / medium** and the effect in the Operational Phase on Protected Structures will be **Slight / Moderate, Negative, Long-term**.

Operational impacts to protected structures at Drogheda MacBride Station (LCC RPS DB-055) will be limited to changes to the historic canopy at Platform 1, where proposals include sensitive restoration proposals to the structure and cutbacks for the roof trusses supporting the canopy. There will also be the replacement of the bridges OBB80 and OBB80A with a modern bridge structure (Refer to Photomontage D1, Figure 15.3.51.2 in Volume 3B of this EIAR). Although these bridges are not protected structures, they are historic railway structures which have some intervisibility with the station complex, and their loss will have some limited indirect visual effects and an effect on the character of the station context. The removal of screening planting to the depot building will also have a visual impact on the station complex, which will require replanting mitigation to reinstate the screening effect. There will be a change with the replacement of the pedestrian overbridge with a similar utilitarian structure with no notable impact on landscape and visual amenity. The sensitivity is **high**. The magnitude of change will be medium / high and the effect in the Operational Phase on the protected structures at Drogheda MacBride Station will be **Slight / Moderate, Negative, Long-term**.

15.5.2.2.5 Amenity Designations

There will be both extensive and localised impacts occurring within the designated High Amenity Areas in Fingal County. There will be provision of the prominent and extensive linear OHLE infrastructure along the existing railway line as it passes throughout this area. There will also be the provision of substations at Donabate (Refer to Photomontage DO2, Figure 15.3.16.2 in Volume 3B of this EIAR), Skerries (Refer to Photomontages S1 to S6, Figures 15.3.24.2 and Figures 15.3.29.2 in Volume 3B of this EIAR) and Balbriggan (Refer to Photomontages BR1 and BR2, Figures 15.3.34.2 and 15.3.35.1 in Volume 3B of this EIAR), as well as various temporary utility diversion proposals. The proposals will introduce new utilitarian structures into the landscape and will result in some degradation of the landscape and visual amenity. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Operational Phase on this amenity designation will be **Moderate, Negative, Long-term**.

There will be no perceivable operational impact on Fairview Park. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on this amenity designation will be **Imperceptible, Neutral, Long-term**.

There will be no perceivable impacts on Clontarf Golf Club due to the minimal changes proposed for the nearest section of railway and the dense screening planting along the intervening boundary. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on this amenity designation will be **Imperceptible, Neutral, Long-term**.

The upgrade of the Howth Junction and Donaghmede Station building which is adjacent to the Open Space at Carndonagh Lawn / St. Donagh's Road will introduce an upgraded building which is characteristic in the context with no impact on the characteristics of the open space (Refer to Photomontages HD1 to HD3, Figures 15.3.1.2 and 15.3.3.2 in Volume 3B of this EIAR). The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Operational Phase on this amenity designation will be **Slight, Neutral, Long-term**.

The proposed development includes the introduction of a modular reinforced earth wall to the eastern edge of the Broadmeadow Way Greenway, but this will have minimal effect on the visual amenity for users. The materials used for the wall will be different to the natural stone proposed for the greenway but will be sufficiently similar to not impact on the overall visual harmony of views. There will be no impact on the usability of the route. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Operational Phase on this amenity designation will be **Slight, Neutral, Long-term**.

The presence of OHLE on Rogerstown Viaduct (UBB36) will be visible in views from nearby or elevated sections of Rogerstown Park (Refer to Photomontages R1 and R2, Figures 15.3.19.2 and 15.3.20.2 in Volume 3B of this EIAR) and will impact on the visual amenity of these views. The sensitivity is **high**. The magnitude of change will be **low** and the effect in the Operational Phase on this amenity designation will be **Slight, Negative, Long-term**.

Given the dense band of screening to the railway boundary, there will be no impact on Beaverstown Golf Course. The sensitivity is **high**. The magnitude of change will be **negligible** and the effect in the Operational Phase on this amenity designation will be **Imperceptible, Neutral, Long-term**.

The siting of a substation at Skerries South will indirectly impact on Skerries Golf Course (Refer to Photomontages S1 and S2, from adjacent road, Figures 15.3.24.2 and 15.3.25.2 in Volume 3B of this EIAR). The proposals will be present in some views from the environs of the Golf Club building and from locations on the course itself. The removal during the Construction Phase of the mature hedgerow and trees on the east side of the railway will reduce the screening effect and be detrimental to the landscape character of the setting. The sensitivity is **high**. The magnitude of change will be **medium / high** and the effect in the Operational Phase on this amenity designation will be **Moderate / Significant, Negative, Long-term**.

The proposed OHLE will be seen from the designated open space at The Old Ballast Pit, Skerries, but there will be no other notable changes. The sensitivity is **low / medium**. The magnitude of change will be **low** and the effect in the Operational Phase on this amenity designation will be **Slight, Negative, Long-term**.

There will be potential impact on the Public Realm Redevelopment for Quay Street and Environs, Balbriggan. The area is planned for future redevelopment into an area of public realm centred around the River Bracken. Assuming that the area will have been redeveloped and operational as a public open space at the time of the Construction Phase, there is potential for continued effects during the Operational Phase from loss of plantings and other landscape features.

The addition of proposed OHLE to the Balbriggan Viaduct will also have a limited effect on the setting of the space. The sensitivity is **high**. The magnitude of change will be **high** and the effect in the Operational Phase on this amenity designation will be **Significant**, **Negative, Long-term**.

The High Amenity Area at Laytown, will be reinstated following use as a Construction Compound. There will some impact on the visual amenity of views from this area with the provision of prominent OHLE to the adjacent Laytown Viaduct (UBB72) but the change will not be uncharacteristic given the presence of the existing railway infrastructure (Refer to Photomontages L1 and L5, Figures 15.3.33.2 and 15.3.45.2 in Volume 3B of this EIAR). The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Operational Phase on this amenity designation will be **Moderate, Negative, Long-term**.

The area of open space / riparian corridor to the west of the station carpark at Laytown may continue to experience effects as a result of potential accidental damage to trees within the area that may have occurred during the Construction Phase. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Operational Phase on this amenity designation will be **Moderate, Negative, Long-term**.

The designated open space on the north side of the railway, on the outskirts of Drogheda (adjacent to Cairnes Court), will not be impacted by the proposals due to the proposals being contained within the railway corridor and the presence of a dense band of vegetation along the intervening boundary. The sensitivity is **medium**. The magnitude of change will be **negligible** and the effect in the Operational Phase on this amenity designation will be **Imperceptible, Neutral, Long-term**.

No direct changes are proposed to MacBride Pitch and Putt. There may be continuing effects from potential damage sustained to the hedgerow along the eastern boundary of the course during the Construction Phase. The sensitivity is **high**. The magnitude of change will be **medium** and the effect in the Operational Phase on this amenity designation will be **Moderate, Negative, Long-term**.

15.5.2.2.6 Tree Preservation Orders / Tree Preservation Objectives

There will be continuing effects resulting from loss of Trees of Special Amenity Value at Dublin Road railway bridge in Drogheda, which will have been removed during the Construction Phase to allow modification to the bridge and adjustments to the adjacent embanked area (Refer to Photomontages D6 and D7, Figures 15.3.56.2 and 15.3.57.2 in Volume 3B of this EIAR). The sensitivity is **high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Operational Phase on these Trees of Special Amenity Value will be **Significant, Negative, Long-term**.

15.5.2.2.7 Preserved views / Scenic Views

The proposals to Malahide Viaduct (UBB30) and the adjoining railway embankment will be visible from preserved views at Bissett's Strand, Malahide (Refer to Photomontage M1 and M2, Figures 15.3.7.2 and 15.3.8.2 in Volume 3B of this EIAR), as well as various preserved views along the shore of Malahide Estuary. The provision of new OHLE masts and modular reinforced earth wall will be apparent, however, the presence of existing OHLE on the section of track south of the viaduct as well as the presence of existing boat masts in the Malahide Marina environs creates a precedent for vertical features in the landscape. In addition, although the estuary has scenic qualities the existing viaduct is of modern utilitarian construction with minimal aesthetic appeal.

The materials used for the proposed modular reinforced earth wall will be different to the natural stone proposed for the greenway but will be sufficiently sensitive to the context to not impact on the overall visual harmony of views. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Operational Phase on these preserved views will be **Slight, Negative, Long-term**.

A preserved view exists at Station Road R128 at Effelstown, in proximity to Rush and Lusk Station. The baseline of this view includes the existing station entrance road, overhead service poles, lighting columns, areas of commercial development and additional visible elements along the road and around the station. There will be continuing effects from the removal of the section of hedgerow for the realignment of the station entrance road. There will not be any other substantial change to the views along the road. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Operational Phase on this preserved view will be **Moderate, Negative, Long-term**.

Preserved views along the unnamed road / Golf Links Road in Loughland; Ballaghstown Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; and the beach front in Skerries will have minimal intervisibility with the proposals due to vegetation, landform and other intervening landscape features. The sensitivity is **high** and the magnitude of change is **negligible / low**. The landscape / townscape and visual effect of the Operational Phase on these preserved views will be **Imperceptible / Slight, Negative, Long-term**.

The R127 Skerries Road between Skerries and Balbriggan (Refer to Photomontage AD1, Figure 15.3.30.2 in Volume 3B of this EIAR) includes designated preserved views. The proposed OHLE will be visible along a considerable length of this view. The proposals will be extensive but not overbearing on the views from the road. The attention of receptors using the road are expected to be generally directed out towards the sea rather than inland towards the railway. Users of the railway could also fall under this designation; the proposed OHLE masts will appear intermittently in the foreground of views from the railway but they will be seen in the context of existing railway infrastructure. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Operational Phase on these preserved views will be **Moderate, Negative, Long-term**.

The proposed OHLE will be visible from the preserved view at the Bower in Balbriggan. This will introduce additional visible elements into a view that already includes the railway and some additional visible elements in the form of utility poles, lighting etc. which form part of the urban fringe setting. It is expected the attention of receptors using the road are more likely to be directed towards the sea views to the north than towards the railway. The sensitivity is **high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Operational Phase on these preserved views will be **Moderate, Negative, Long-term**.

The construction proposals for Balbriggan Substation will be visible from the preserved view at the R132 Bremore (Refer to Photomontages BR1 and BR2, Figures 15.3.34.2 and 15.3.35.2 in Volume 3B of this EIAR). There will be continuing effects from the removal of a section of hedgerow along the eastern side of the road, provision of a new access route and provision of the substation in an adjacent field. The proposals will interfere with the protected sea views for receptors travelling along the R132.

The sensitivity is **high** and the magnitude of change is **medium / high**. The landscape / townscape and visual effect of the Operational Phase on these preserved views will be **Moderate / Significant, Negative, Long-term**.

The preserved view from Laytown Strand looking northwards along the shore will not be affected. The OHLE will be present along the railway to the west but will not be visible in northward views. The sensitivity is **high** and the magnitude of change is **negligible**. The landscape / townscape and visual effect of the Operational Phase on these preserved views will be **Imperceptible, Neutral, Long-term**. Other protected views in Meath, including No.'s. 68, 69, 70 and 71, are distant and will not be perceivably affected by the proposals.

15.5.2.2.8 Properties

There will be effects continuing into the Operational Phase from Construction Phase impacts on residential properties. This includes the single property at the eastern end of McGrath's Lane (PR23), Drogheda where there will be permanent land take from a landscaped driveway leading to the house for replacement of the overbridge OBB80/80A/80B and associated regrading to McGrath's Lane. This residential property will have continuing effects from loss of landscaped areas, and impacts on boundaries and plantings. The existing access route over the overbridge will be restored. The sensitivity is **medium / high** and the magnitude of change is **medium / high**. The landscape / townscape and visual effect of the Operational Phase on this residential property with land acquisition will be **Moderate / Significant, Negative, Long-term**.

There will also be effects continuing into the Operational Phase from Construction Phase impacts on the residential property at St. Mary's Villas (PR28) where there will be loss of garden trees and other vegetation, boundaries and permanent loss of garden area. The loss of screening vegetation along the boundary with the railway will expose the property to railway operations. The sensitivity is **medium / high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Operational Phase on this residential property with land acquisition will be **Significant, Negative, Long-term**.

There will also be Operational Phase effects continuing from the Construction Phase impacts on the residential properties south of Gormanston Station where will have been loss of boundary trees separating the property from the railway and permanent loss of garden area. The loss of screening vegetation along the boundary with the railway will expose the property to railway operations. The sensitivity is **medium / high** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Operational Phase on these residential properties with land acquisition will be **Significant, Negative, Long-term**.

There will be continuing effects to the property at the west end of McGrath's Lane (PR22), which will not experience landtake but will have been effected by impacts outside of the property boundary including removal of associated planting and regrading of its access route. There will also be a reduction in visual amenity due to the proximity of the new McGrath's Lane overbridge to the property. The sensitivity is **medium / high** and the magnitude of change is **medium**. The landscape / townscape and visual effect of the Operational Phase on this residential property will be **Moderate, Negative, Long-term**.

For residential receptors, there will be continuing effects from loss of vegetation removed during the Construction Phase and provision of new utilitarian structures into the views. There will be more notable visual effects on residential properties adjacent to the following locations where there will be key offline proposals. Reference codes refer to Figure 15.2 receptor locations in Volume 3A of this EIAR:

- Howth Junction and Donaghmede Station west entrance, including some additional lighting (Ref: PR1) (Refer to Photomontages HD1 to HD3, Figures 15.3.1.2 and 15.3.3.2 in Volume 3B of this EIAR);
- Rush and Lusk Substation (Ref: PR4);
- Skerries South Substation (Ref: PR5 and PR6) (Refer to Photomontage S4, Figure 15.3.27.2 in Volume 3B of this EIAR);
- Skerries North Substation (Ref: PR7 and PR8) (Refer to Photomontages S5, Figure 15.3.28.2 in Volume 3B of this EIAR);
- Properties off Barnageeragh Road, northwest of Skerries (Ref:PR9 and PR10);
- Gormanston Substation (Ref: PR15) (Refer to Photomontage G4, Figure 15.3.39.2 in Volume 3B of this EIAR);
- Bettystown Substation, with tree buffer removed during construction(Ref:PR17) (Refer to Photomontage A2, Figure 15.3.47.2 in Volume 3B of this EIAR);
- Under Track Crossings (UTX) Compound at Park Wood / Park Grove, Drogheda (trees removed during construction) (Ref: PR18 and PR19);
- UTX works adjacent to Acorn Way, Drogheda (potential for trees removed during construction) (Ref: PR20, PR21);
- Railway Terrace / McGrath's Lane / St. Mary's Villas area where trees will have been removed during construction (PR21, PR22, PR23 and PR24) (Refer to Photomontages D5 to D9, Figures 15.3.55.2 and 15.3.59.2 in Volume 3B of this EIAR); and
- Drogheda MacBride Station / Dublin Road rail bridge (new structures, station platform and lighting as well as continued effects from trees removed during construction) (Ref: PR24, PR25, PR26, PR27, PR28) (Refer to Photomontages D6 to D10, Figures 15.3.56.2 and 15.3.60.2 in Volume 3B of this EIAR).

The sensitivity is **medium / high** and the magnitude of change is **medium / high**. The visual effect of the Operational Phase on these properties will be **Moderate / Significant, Negative, Long-term**.

There is potential for continued effects on residential properties from the utility diversions and removal of garden vegetation, hardscape and boundaries which have taken place during the Construction Phase. There may be some localised positive benefits or neutralisation of negative effects as a result of the permanent removal of overhead utilities, however, overall the effect is likely to be negative. Specific utility diversions have been described in Chapter 4 (Description of the Proposed Development) and assessed in Chapter 18 (Material Assets: Utilities) in Volume 2 of this EIAR. A set of figures including existing utilities (Figures 18.1) and proposed utility diversions (Figures 18.2) are presented in Volume 3A of this EIAR:

- 19+300 (Semple Woods);
- 23+700 (Property / properties north of R128);
- 24+200 (Property on Horestown Road, Kingstown);
- 26+000 (Property / properties on Featherbed Lane, Haystown);
- 26+100 (Property / properties on Featherbed Lane, Haystown);

- 26+800 (Property / properties west of Featherbed Lane, Ballykea);
- 27+000 (Property / properties south of Featherbed Road, Ballykea);
- 27+100 (Properties on Baldongan Road / Featherbed Road, Ballykea);
- 32+300 (Property / properties on Barnageeragh Road, Strifeland);
- 32+500 (Property / properties northwest of Barnageeragh Road, Strifeland);
- 34+900 (Property / properties off Pinewood Green Road, Barnageeragh, Strifeland);
- 35+300 (Properties on Gibbons Terrace and Skerries Road / Back Road, Balbriggan);
- 36+400 (Property / properties on Bath Road, Balbriggan);
- 39+800 (Property / properties south of Gormanston Station);
- 45+200 (Property / properties on Alverno Court, Laytown);
- 51+500 (Property / properties on Weaver's Way, Drogheda);
- 51+500 (Property / properties at Newtown View, Drogheda); and
- 51+700 (Property on McGrath's Lane).

There are likely to be continued effects from the removal of hardscape, boundaries, trees, and other garden vegetation. The sensitivity is **medium / high** and the magnitude of change is **medium / high**. The visual effect of the Operational Phase on these properties will be **Moderate / Significant, Negative, Long-term**.

There will be various direct impacts to non-residential properties in the form of permanent land take, introduction of structures and access routes, and continuing effects from loss of vegetation and boundaries. The sensitivity is **medium** and the magnitude of change is **high**. The landscape / townscape and visual effect of the Operational Phase on non-residential properties with land acquisition will be **Moderate, Negative, Long-term**.

The majority of the proposals will occur within the existing railway corridor and in many cases the visual effects will be reduced by trackside vegetation, landform / cuttings, or adjacent built form. Where views of the proposals to the railway corridor will be seen they will be experienced in the context of an operational railway with existing visible elements, and regularly occurring movement and activity. Generally, for residential properties viewing and fronting the proposals, there will be a partial intrusion of the development in the views, possibly with provision of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity. For urban, suburban and rural properties viewing and fronting the proposals within the existing railway corridor (excluding those adjacent to key offline proposals) the sensitivity is **medium / high** and the magnitude of change is **medium**. The visual effect of the Operational Phase on these properties will be **Moderate, Negative, Long-term**.

15.5.2.2.9 Trees, hedgerows and plantings

There will be continuing Long-term effects from the loss of trees, hedgerows and other plantings removed during the Construction Phase at a number of locations along the scheme, most notably at:

- Clongriffin Turnback and Station Works Compound;
- Donabate Substation access route;
- Rush and Lusk Substation and access route;
- Skerries South Substation and access route;

- Skerries North Substation and access route;
- Golf Links Road Skerries UTX Compound;
- Bettystown Substation;
- UTX Compound at Park Wood / Park Grove;
- Dublin Road bridge, Drogheda / areas to north of Railway Terrace; and
- Works to Railway Terrace / McGraths Lane for OBB80/80A/80B.

Vegetation will also be removed and tree canopies pruned to allow safe operation of OHLE throughout the railway. The sensitivity is **high** and the magnitude of change is locally **high**. The landscape / townscape and visual effect of the Operational Phase on trees, hedgerows and plantings will be **Significant, Negative, Long-term.**

15.5.2.3 Summary of Operational Phase Impacts

The summary of the landscape and visual impact assessment for the Operational Phase of the Proposed Development is set out in Table 15-7.

Table 15-7 Summary of Potential Operational Phase Effects

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Landscape, Townscape and Streetscape Character				
Zone A: North of Connolly Station to Howth Junction and Donaghmede Station		Medium / High	Low	Slight, Negative, Long-term
Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct		Medium / High	Low	Slight / Moderate, Negative, Long-term
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)		High	Medium / High	Moderate / Significant Negative, Long-term
Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border		High	Medium	Moderate, Negative, Long-term
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)		Medium / High	Medium / High	Moderate / Significant, Negative, Long-term
Landscape, Townscape and Streetscape Characteristics and Visual Impacts				
Architectural Conservation Areas (ACAs)	Hollybrook Road	High	Negligible	Imperceptible, Neutral Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Portmarnock (old Portmarnock); Newbridge Demesne; Portraine (Portrane) Demesne; Milverton Demesne; centre of Skerries	Very High	Negligible	Imperceptible, Neutral Long-term
	Central Malahide	Very High	Negligible	Imperceptible, Neutral Long-term
	Ardgillan Demesne	Very High	Low	Slight, Negative, Long-term
	Central Balbriggan.	High	Negligible	Slight, Negative, Long-term
	Nos 1 – 6 Railway Terrace	High	High	Significant, Negative, Long-term
Conservation Areas	River Tolka corridor, River Santry corridor, linear park at Donaghmede	High	Low	Slight, Neutral, Long-term
Residential Conservation Areas	Residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St. Lawrence Road and Middle Third / Killester Avenue / Demesne	High	Negligible	Imperceptible, Neutral, Long-term
Protected structures	Clontarf Bridge (UBB5) (DCC RPS 880)	High	Negligible	Imperceptible, Neutral, Long-term
	Former Signalman's House at Howth Junction and Donaghmede Station (FCC RPS No. 788)	High	Negligible	Imperceptible, Neutral, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Rail bridge at Grange / Maynetown (FCC RPS No. 919)	High	Medium	Moderate, Negative, Long-term
	<u>Malahide</u> Malahide Railway Station (FCC RPS No. 388); and railway bridge over Bissett's Strand, Malahide (FCC RPS No. 423)	High	Negligible	Imperceptible, Neutral, Long-term
	Malahide Railway Viaduct (UBB30) (FCC RPS No. 420)	High	Medium	Moderate, Negative, Long-term
	<u>Zone C - Indirect impacts:</u> Railway bridge at Corballis Road, Kilcrea (FCC RPS No. 502; rail bridge at Dublin Road, Townparks (FCC RPS No. 231); Donabate Railway Station and Former Station Master's House (RPS No.'s. 511 and 510); rail bridge at Rogerstown, Lusk (RPS No. 286); two rail bridges at Barnageeragh Road (FCC RPS No.'s. 880 and 879); Croom House, Balbriggan (RPS No. 53); Former RNLI Boathouse (FCC RPS No. 35); Balbriggan Railway Station (FCC RPS No. 30); Chimney of Former Sea Mills Hosiery Factory (FCC RPS No. 19); Bridge at Bremore (FCC RPS No. 876); railway bridge off	High	Low	Slight, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Drogheda Road, Bremore (FCC RPS No. 12); and Knocknagin / Gormanston Viaduct (UBB65) (FCC RPS No. 1)			
	<u>Zone C - Direct impacts to structure:</u> Rogerstown Viaduct (UBB36) (RPS No. 516); road bridge at Rogerstown Lane, Rogerstown (RPS No. 287); Rush and Lusk Station (RPS No. 288); road bridge at Tyrellstown (RPS No. 292); road bridge L1285, Ballykea (RPS No. 246); Skerries Railway Station and Station Master's House (RPS No.'s. 191 and 192); Ballbriggan Viaduct (UBB56) (RPS No. 36)	High	Low / Medium	Slight / Moderate, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	<u>Zone D - Indirect impacts</u> Knocknagin /Gormanston Viaduct (UBB65) (Meath RPS No. 91,050); Laytown Station Masters House (Meath RPS No. 91,072) and Stameen (Meath RPS No. 90,723)	High	Low	Slight, Negative, Long-term
	<u>Zone D - Direct impacts:</u> Laytown Viaduct (UBB72) (Meath RPS No. 91,073)	High	Low / Medium	Slight / Moderate, Negative, Long-term
	<u>Zone E</u> Drogheda MacBride Station RPS DB-055; Engine Shed (LCC RPS DB-395); Water Tower (LCC RPS DB-397); Parcel Office (LCC RPS DB-396); Boiler House (LCC RPS DB-398); and Toilet Building (LCC RPS DB-399)	High	Medium / High	Slight / Moderate, Negative, Long-term
Amenity Designations	Fingal High Amenity Areas	High	Medium	Moderate, Negative, Long-term
	Fairview Park	High	Negligible	Imperceptible, Neutral, Long-term
	Clontarf Golf Club	High	Negligible	Imperceptible Neutral Long-term
	Open Space at Carndonagh Lawn / St. Donagh's Road	High	Low	Slight, Neutral, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Broadmeadow Way Greenway	High	Low	Slight, Neutral, Long-Term
	Rogerstown Park	Medium	Low	Slight, Negative, Long-term
	Beaverstown Golf Course	High	Negligible	Imperceptible, Neutral, Long-term
	Skerries Golf Course	High	Medium / High	Moderate / Significant, Negative, Long-term
	Old Ballast Pit	Low / Medium	Low	Slight, Negative, Long-term
	Public Realm Redevelopment, Quay Street and Environs, Balbriggan	High	High	Significant, Negative, Long-term
	Meath High Amenity Area at Laytown	High	Medium	Moderate, Negative, Long-term
	Open space / riparian corridor west of Laytown Station	High	Medium	Moderate, Negative, Long-term
	Open space designation north of railway on outskirts of Drogheda (adjacent to Cairnes Court)	Medium	Negligible	Imperceptible, Neutral, Long-term
	MacBride Pitch and Putt	Medium / High	Low	Moderate, Negative, Long-term
Tree Preservation Orders / Tree Protection Objectives	Trees of Special Amenity Value at Dublin Road Rail Bridge, Drogheda	High	High	Significant, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Preserved views / Scenic Views etc.	Bissetts Strand, Malahide	High	Medium	Slight, Negative, Long-term
	Malahide Estuary	High	Medium	Slight, Negative, Long-term
	Station Road R128 at Effelstown, in proximity to Rush and Lusk Station	High	Medium	Medium, Negative, Long-term
	Unnamed road / Golf Links Road in Loughland; Ballaghstown Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; the beach front in Skerries	High	Negligible / Low	Imperceptible / Slight, Negative, Long-term
	R127 Skerries Road / Railway to Balbriggan	High	Medium	Moderate, Negative, Long-term
	The Bower, Balbriggan	High	Medium	Moderate, Negative, Long-term
	R132 Bremore	High	Medium / High	Moderate / Significant, Negative, Long-term
	Laytown Strand (looking northwards along shore)	High	Negligible	Imperceptible, Neutral, Long-term
Properties	Residential property east end McGrath's Lane with effects on access / planting during the Operational Phase	Medium / High	High	Moderate / Significant, Negative, Long Term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Residential properties: at St. Mary's Villas; and south of Gormanston Station, impacted with land acquisition during the Operational Phase	Medium / High	High	Significant, Negative, Long-term
	Residential property west end McGrath's Lane with effects on access / planting during the Operational Phase	Medium / High	High	Moderate, Negative, Long Term
	Urban, suburban and rural properties along, fronting and viewing key offline proposals	Medium / High	Medium / High	Moderate / Significant, Negative, Long-term
	Residential properties impacted by utility diversions	Medium / High	Medium / High	Moderate / Significant, Negative, Long-term
	Non-residential properties with land acquisition during Operational Phase	Medium	High	Moderate, Negative, Long-term
	Urban, suburban and rural properties along, fronting and viewing the Proposed Development, excluding those adjacent to key offline proposals	Medium / High	Medium	Moderate, Negative, Long-term
Trees and Vegetation		High	High	Significant, Negative, Long-term

15.6 Mitigation Measures

15.6.1 Introduction

This section describes mitigation and monitoring measures which are proposed to ameliorate, remediate or reduce significant landscape (townscape) and visual impacts from the Construction and Operational Phases wherever possible.

15.6.2 Construction Phase

A series of mitigation and management measures are proposed to avoid, reduce or remediate, wherever practicable significant negative landscape (townscape) and visual effects of the Construction Phase of the Proposed Development. These measures are to be applied across the scheme wherever necessary to avoid disturbance of landscape features or characteristics to be retained. Generally, the effect rating post-mitigation will be the same as pre-mitigation, however the measures proposed should still be applied as necessary to manage the potential effects of construction activities. A summary of predicted Construction Phase effects following the implementation of mitigation and monitoring measures is listed in Table 15-8.

- In order to protect trees intended for retention, it is necessary to determine the appropriate protection measures to reduce risk of accidental damage. Prior to commencement of the works, an Arboricultural Survey will be produced for the area of the Proposed Development, as well as for any adjoining areas where trees are likely to be impacted by the works, in accordance with British Standard Institution (BSI) British Standard (BS) 5837:2012 'Trees in relation to in relation to design, demolition and construction - Recommendations' (BSI 2012);
- All trees and vegetation to be retained within and adjoining the works area will be protected in accordance with the British Standard Institution (BSI) British Standard (BS) 5837:2012 'Trees in relation to in relation to design, demolition and construction - Recommendations' (BSI 2012). Works required within the root protection area (RPA) of trees to be retained will follow a project-specific arboricultural methodology for such works, which will be prepared by a professional qualified arborist;
- Wherever possible, trees and vegetation will be retained within the Proposed Development. Trees and vegetation identified for removal will be removed in accordance with 'BS 3998:2010 Tree Work – Recommendations' (BSI 2010) and best arboricultural practices as detailed and monitored by a professional qualified arborist. Details of trees and vegetation to be removed will be included in the Arboricultural Impact Assessment Report (and associated Tree Protection Plans) as set out above;
- The Arboricultural Assessment to be prepared as part of mitigation for the Proposed Development will be fully updated at the end of the Construction Phase and made available to the landowner (IÉ, planning authority, other as appropriate), with any recommendations for on-going monitoring of retained trees during the Operational Phase;
- Where properties are subject to permanent and / or temporary acquisition (as noted in Sections 15.5.1.2.8 and 15.5.2.2.8), an inventory of existing boundary details and accesses, planting, paving, and other features that may be disturbed or removed will be prepared by the contractor prior to commencement of construction works; and
- Where properties are subject to permanent and / or temporary acquisition (as noted in Sections 15.5.1.2.8 and 15.5.2.2.8), appropriate measures will be put in place to provide for protection of features, trees and vegetation to be retained, and for continued access during

construction, for adequate security and screening of construction works. All temporary acquisition areas will be decommissioned and reinstated at the end of the Construction Phase.

In addition to the above measures, construction works will be managed in accordance with the Construction Environmental Management Plan (CEMP) - refer to Appendix A5.1 in Volume 4 of this EIAR. This provides the environmental management framework to be adhered to during the Construction Phase of the Proposed Development.

It is acknowledged that in some cases mitigation of effects on townscape and visual characteristics is neither possible nor practicable – for example, it is not practicable to provide landscape mitigation for the loss of land from private properties, or to provide mitigation for loss of mature trees in the short / medium-term, and these effects are residual. While not considered to be a landscape-specific mitigation measure, all land acquisition will be the subject of compensation. The impact of land acquisition is detailed in Chapter 17 (MA: Non-agricultural Properties).

15.6.2.1 Summary of Predicted Construction Effects

A summary of the predicted Construction Phase landscape and visual impacts following the implementation of mitigation measures and monitoring is set out in Table 15-8.

Table 15-8 Summary of Potential Construction Phase Effects Following the Implementation of Mitigation and Monitoring Measures

Receptor	Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Landscape, Townscape and Streetscape Character			
Zone A: North of Connolly Station to Howth Junction and Donaghmede Station	Medium / High	Low	Slight / Moderate, Negative, Temporary / Short-term
Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct	Medium / High	Low	Slight / Moderate, Negative, Temporary / Short-term
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border	High	Medium	Moderate, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)		Medium / High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
Landscape, Townscape and Streetscape Characteristics and Visual Impacts				
Architectural Conservation Areas (ACAs)	Hollybrook Road	High	Negligible	Imperceptible, Negative Temporary / Short-term
	Portmarnock (old Portmarnock); Newbridge Demesne; Portraine (Portrane) Demesne; Milverton Demesne; centre of Skerries	Very High	Negligible	Imperceptible, Negative Temporary / Short-term
	Central Malahide	Very High	Medium	Moderate, Negative, Temporary / Short-term
	Ardgillan Demesne	Very High	Low	Slight, Negative, Temporary / Short-term
	Central Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term
	No.'s 1 – 6 Railway Terrace	High	High	Significant, Negative, Temporary / Short-term
Conservation Areas	River Tolka corridor, River Santry corridor, linear park at Donaghmede	High	Low	Slight, Negative, Temporary / Short-term
Residential Conservation Areas	Residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St.	High	Negligible	Imperceptible, Neutral, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Lawrence Road and Middle Third / Killester Avenue / Demesne			
Protected structures	Clontarf Bridge (UBB5) (DCC RPS 880)	High	Negligible	Imperceptible, Neutral, Temporary / Short-term
	Former Signalman's House at Howth Junction and Donaghmede Station (FCC RPS No. 788)	High	Low / Medium	Slight / Moderate, Negative, Temporary / Short-term
	Rail bridge at Grange / Maynetown (UBB19) (FCC RPS No. 919)	High	Medium	Moderate, Negative, Temporary / Short-term
	Malahide Railway Station (FCC RPS No. 388); and railway bridge over Bissett's Strand, Malahide (UBB29) (FCC RPS No. 423)	High	Negligible	Imperceptible, Negative, Temporary / Short-term
	Malahide Railway Viaduct (UBB30) (FCC RPS No. 420)	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
	<u>Zone C - Indirect impacts:</u> Railway bridge at Corballis Road, Kilcrea (UBB32) (FCC RPS No. 502; rail bridge at Dublin Road, Townparks (UBB50) (FCC RPS No. 231); Donabate Railway Station and Former Station Master's House (RPS No.'s. 511 and 510); rail bridge at Rogerstown, Lusk (UBB37); two rail	High	Low / Medium	Slight / Moderate, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	bridges at Barnageeragh Road (UBB53) (FCC RPS No.'s. 880 and 879); Croom House, Balbriggan (RPS No. 53); Former RNLI Boathouse (FCC RPS No. 35); Balbriggan Railway Station (FCC RPS No. 30); Chimney of Former Sea Mills Hosiery Factory (FCC RPS No. 19); Bridge at Bremore (UBB60) (FCC RPS No. 876); railway bridge off Drogheda Road, Bremore (UBB61) (FCC RPS No. 12); and Knocknagin / Gormanston Viaduct (UBB65) (FCC RPS No. 1)			
	<u>Zone C - Direct impacts to structures:</u> Rogerstown Viaduct (UBB36) (RPS No. 516); road bridge at Rogerstown Lane, Rogerstown (OBB38) (RPS No. 287); (RPS No. 286); Rush and Lusk Station (RPS No. 288); road bridge at Tyrellstown (OBB44) (RPS No. 292); road bridge L1285, Ballykea (OBB46) (RPS No. 246); Skerries Railway Station and Station Master's House (RPS No.'s. 191 and 192); and Ballbriggan Viaduct (UBB56) (RPS No. 36)	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	<u>Zone D - Indirect impacts</u> Knocknagin / Gormanston Viaduct (UBB65) (Meath RPS No. 91,050); Laytown Station Masters House (Meath RPS No. 91,072) and Stameen (Meath RPS No. 90,723)	High	Low / Medium	Slight / Moderate, Negative, Temporary / Short-term
	<u>Zone D – Direct impacts to structures:</u> Laytown Viaduct (UBB72) (Meath RPS No. 91,073)		Medium / High	Moderate / Significant, Negative, Temporary / Short-term
	<u>Zone E</u> Drogheda MacBride Station including: Engine Shed (LCC RPS DB-395); Water Tower (LCC RPS DB-397); Parcel Office (LCC RPS DB-396); Boiler House (LCC RPS DB-398); and Toilet Building (LCC RPS DB-399)	High	Medium / High	Moderate, Negative, Temporary / Short-term
Amenity Designations	Fingal High Amenity Areas	High	Medium	Moderate, Negative, Temporary / Short-term
	Fairview Park	High	Low	Slight, Negative Temporary / Short-term
	Clontarf Golf Club	High	Negligible	Imperceptible, Neutral Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Open Space at Carndonagh Lawn / St. Donagh's Road	High	Medium	Moderate, Negative, Temporary / Short-term
	Broadmeadow Way Greenway	High	Medium	Moderate, Negative, Temporary / Short-term
	Rogerstown Park	Medium	Low	Slight, Negative, Temporary / Short-term
	Beaverstown Golf Course	High	Low	Slight, Negative, Temporary
	Skerries Golf Course	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
	Old Ballast Pit	Low / Medium	Low / Medium	Slight / Moderate, Negative, Temporary / Short-term
	Public Realm Redevelopment, Quay Street and Environs, Balbriggan	High	High	Significant, Negative, Temporary / Short-term
	Meath High Amenity Area at Laytown	High	High	Significant, Negative, Temporary / Short-term
	Open space / riparian corridor west of Laytown Station	High	Medium	Moderate, Negative, Temporary / Short-term
	Open space designation north of railway on outskirts of Drogheda (adjacent to Cairnes Court)	Medium	Negligible	Imperceptible, Neutral, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	MacBride Pitch and Putt	Medium / High	Medium	Moderate, Negative, Temporary / Short-term
Tree Preservation Orders / tree Protection Objectives	Trees of Special Amenity Value at Dublin Road Rail Bridge, Drogheda	High	High	Significant, Negative, Temporary / Short-term
Preserved views / Scenic Views etc.	Bissetts Strand, Malahide	High	Medium	Moderate, Negative, Temporary / Short-term
	Malahide Estuary	High	Medium	Moderate, Negative, Temporary / Short-term
	Station Road R128 at Effelstown, in proximity to Rush and Lusk Station	High	Medium	Moderate, Negative, Temporary / Short-term
	Unnamed road / Golf Links Road in Loughland; Ballaghstown Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; the beach front in Skerries	High	Negligible / Low	Imperceptible / Slight, Negative, Temporary / Short-term
	R127 Skerries Road / Railway to Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term
	The Bower, Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	R132 Bremore	High	High	Significant, Negative, Temporary / Short-term
	Laytown Strand (looking northwards along shore)	High	Negligible	Imperceptible, Neutral, Temporary / Short-term
Properties	Residential properties impacted with land acquisition during the Construction Phase	Medium / High	High	Significant, Negative, Temporary / Short-term
	Residential property west end McGrath's Lane with impacts on access / planting during the Construction Phase	Medium / High	High	Moderate / Significant, Negative, Temporary / Short-term
	Residential properties impacted by utility diversions	Medium / High	Medium / High	Moderate / Significant, Negative, Temporary
	Non-residential properties with land acquisition during Construction Phase	Medium	High	Moderate, Negative, Temporary / Short-term
	Urban, suburban and rural properties along, fronting and viewing the Proposed Development, excluding those adjacent to key offline works	Medium / High	Medium	Moderate, Negative, Temporary / Short-term
	Urban, suburban and rural properties along, fronting and viewing key offline works	Medium / High	High	Moderate / Significant, Negative, Temporary / Short-term
Trees and Vegetation		High	High	Significant, Negative

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
				Temporary / Short-term

15.6.3 Operational Phase

Mitigation measures are proposed to avoid, reduce or remediate, wherever possible significant negative landscape and visual effects of the Operation Phase of the Proposed Development. A detailed description of the Proposed Development is provided in Chapter 4 (Description of the Proposed Development).

In addition to the management of all Operation Phase activities in accordance with best methodologies and practice, that following general measures are proposed for the mitigation of landscape / townscape and visual impacts:

- Where existing trees, hedges, and / or plantings are removed, new planting will be provided in replacement of those removed. In general, unless not feasible or practicable, new plant species will match those removed. Replacement plant sizes will be those that are readily available and therefore, are unlikely to match the maturity of plants removed (especially in the case of trees or larger plants). However, being of the same or similar species, maturity similar to that of the existing can be achieved in time.
- The Proposed Development will provide for the planting of new trees and shrubs both for mitigation of tree removal and for screening of proposals particularly substations. Species shall be selected to be appropriate to the characteristics of the specific location and to limit potential impacts on the operation of the railway due to mature height or leaf fall.
- Proposals for the treatment of the public realm within the streetscape effected by the Proposed Development will have regard to the existing character of the street or location, to emerging policies, objectives and proposals for the public realm and to opportunities for enhancement of the public realm and the streetscape. Proposals will have regard to historic details and features, to the quality of existing and proposed materials, to the reduction of visible elements, ease of legibility, and management and maintenance requirements;
- The materials and finishes used for proposed substation buildings and associated fencing will be sympathetic to the context;
- New lighting to use modern fittings with directional horizontal cut-off cowling;
- Landscape proposals will have regard to the recommendations of: Chapter 8 (Biodiversity) in relation to opportunities for enhancement of biodiversity; Chapter 20 (Archaeology and Cultural Heritage) and Chapter 21 (Architectural Heritage) in relation to opportunities for enhancement of cultural and architectural heritage; and Chapter 10 (Water) in relation to opportunities for incorporation of Sustainable Urban Drainage Systems (SuDS);
- Maintenance and monitoring of reinstatement works in public areas will ensure that any defective materials or workmanship will be made good within a period of 12 months from completion of all construction works in any given area.

Thereafter, responsibility for maintenance and monitoring of the area will revert to the landowner (e.g. local authority);

- All aspects of the Proposed Development within public areas will revert to on-going management and maintenance in accordance with normal operational practices by the landowner / tenant. This will include hard and soft landscape works and townscape measures, new and reinstated tree and other planting, new and reinstated surfacing and paving, etc.; and
- Unless otherwise requested by the property owner, maintenance and monitoring of reinstatement and hard and soft landscape works and reinstated and new boundaries in private areas (i.e. temporary acquisition areas) will ensure that any defective materials or workmanship will be made good within a period of 12 months following completion of the works in property. Thereafter, responsibility for maintenance and monitoring of private areas will revert to the landowner.

In addition to the above general landscape mitigation measure, the following specific landscape mitigation measures will be implemented:

- The design of the proposed railway bridge over the Mayne River to use materials and finishes which are appropriate to the form and setting of the existing protected structure. Potential access for a future greenway to be maintained as far as possible;
- Provision of coastal wildflower mix to the side slope of Malahide Turnback with species suitable for coastal situation;
- Provision of cascading plants (e.g. *Hedera helix*) to the top of the proposed modular reinforced earth wall along the edge of Broadmeadow Way greenway to help soften the new wall for views from the greenway and the Estuary, as far as reasonably practicable;
- At Donabate Substation, appropriate native planting will be proposed to the perimeter to screen the proposals from the surrounding High Amenity designation;
- Provision of replacement planting where necessary to reinstate sections of existing perimeter hedgerows removed for substation at Rush and Lusk;
- Replacement planting for hedgerow removed as part of the Rush and Lusk Station entrance road works. Native hedgerow / shrub planting to be provided to the west of the removed hedgerow location on land currently occupied by the existing entrance;
- Provision of replacement planting along Golf Links Road and new native tree and shrub planting to the perimeter of Skerries South Substation, to limit effects on amenity of road, adjacent residential property and Skerries Golf Course;
- Provision of perimeter planting to Skerries North Substation, to limit effects on surrounding residential receptors;
- Reinstatement of planned Public Realm Redevelopment at Quay Street and Environs, Balbriggan, including reinstatement of planting and other landscape features;
- Offset of access road to sub-station at Balbriggan to retain / augment field boundary hedgerow;
- Provide space for new screen planting around north, west and south of sub-station at Balbriggan North including around infiltration basin;
- Replacement of hedgerow / trees at Irishtown Road, Gormanston, and around perimeter of substation, to limit effects on nearby residential receptors;
- Replanting of screening planting at setback alignment to residential property undergoing landtake south of Gormanston Station;

- Replacement of any trees or other vegetation damaged or lost at designated open space (woodland) by works at Laytown Station compound;
- Replanting of tree planting to either side of access road to Bettystown substation and provision of tree and shrub planting along boundary with residential areas, to restore screening between nearby residential areas and screen the substation from residential properties;
- Replanting of screening planting at setback alignment to residential property undergoing landtake at St. Mary's Villas; and
- Replanting of woodland area adjacent to Dublin Road rail bridge / Railway Terrace, Drogheda, as far as reasonably practicable.

15.6.3.1 Summary of Predicted Operational Effects

Following the establishment of mitigation measures, most notably from the growth of replacement / screening vegetation but also due to gradual acceptance of the proposed changes by receptors, the scheme will become increasingly integrated within its landscape (townscape) setting. This will result in the gradual mitigation of potential negative operational phase effects over time. A summary of the predicted Operation Phase landscape and visual impacts following implementation of mitigation measures and monitoring is set out in Table 15-9.

Table 15-9 Summary of Potential Operational Phase Effects Following the Implementation of Mitigation and Monitoring Measures

Receptor	Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
Landscape, Townscape and Streetscape Character				
Zone A: North of Connolly Station to Howth Junction and Donaghmede Station	Medium / High	Low	Slight, Negative, Long-term	Slight, Neutral, Long-term
Zone B: Howth Junction and Donaghmede Station to North of Malahide Viaduct	Medium / High	Low	Slight / Moderate, Negative, Long-term	Slight, Negative, Long-term
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)	High	Medium / High	Moderate / Significant, Negative, Long-term	Moderate, Negative, Long-term
Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border	High	Medium	Moderate, Negative, Long-term	Moderate, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)		Medium / High	Medium / High	Moderate / Significant, Negative, Long-term	Moderate, Negative, Long-term
Landscape, Townscape and Streetscape Characteristics and Visual Impacts					
Architectural Conservation Areas (ACAs)	Hollybrook Road	High	Negligible	Imperceptible, Negative, Long-term	Imperceptible, Negative Long-term
	Portmarnock (old Portmarnock); Newbridge Demesne; Portraine Demesne; Milverton Demesne; centre of Skerries	Very High	Negligible	Imperceptible, Negative, Long-term	Imperceptible, Negative Long-term
	Central Malahide	Very High	Low	Imperceptible, Neutral, Long-term	Slight, Negative Long-term
	Ardgillan Demesne	Very High	Low	Slight, Negative, Long-term	Slight, Negative Long-term
	Central Balbriggan	High	Medium	Slight, Negative, Long-term	Slight, Negative Long-term
	No.'s 1 – 6 Railway Terrace	High	Negligible	Significant, Negative, Long-term	Moderate, Negative Long-term
Conservation Areas	River Tolka corridor, River Santry corridor, linear park at Donaghmede	High	Low	Slight, Neutral, Long-term	Slight, Neutral, Long-term
Residential Conservation Areas	Residential Conservation Areas at Howth Road, Clontarf Road, Hollybrook Road, St.	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	Lawrence Road and Middle Third / Killester Avenue / Demesne				
Protected structures	Clontarf Bridge (UBB5) (DCC RPS 880)	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	Former Signalman's House at Howth Junction and Donaghmede Station (FCC RPS No. 788)	High	Low	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	Rail bridge at Grange / Maynetown (UBB19) (FCC RPS No. 919)	High	Medium	Moderate, Negative, Long-term	Slight / Moderate, Neutral, Long-term
	Malahide Malahide Railway Station (FCC RPS No. 388); and railway bridge over Bissett's Strand, Malahide (UBB29) (FCC RPS No. 423)	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	Malahide Railway Viaduct (UBB30) (FCC RPS No. 420)	High	Medium / High	Moderate, Negative, Long-term	Moderate, Negative, Long-term
	Zone C - Indirect impacts: Railway bridge at Corballis Road, Kilcrea (UBB32) (FCC RPS No. 502; rail bridge at Dublin Road, Townparks (FCC RPS No. 231); Donabate Railway Station	High	Low	Slight, Negative, Long-term	Slight, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	and Former Station Master's House (RPS No.'s. 511 and 510); rail bridge at Rogerstown, Lusk (RPS No. 286); two rail bridges at Barnageeragh Road (UBB53) (FCC RPS Nos. 880 and 879); Croom House, Balbriggan (RPS No. 53); Former RNLI Boathouse (FCC RPS No. 35); Balbriggan Railway Station (FCC RPS No. 30); Chimney of Former Sea Mills Hosiery Factory (FCC RPS No. 19); Bridge at Bremore (OBB33) (FCC RPS No. 876); railway bridge off Drogheda Road, Bremore (UBB61) (FCC RPS No. 12); and Knocknagin / Gormanston Viaduct (UBB65) (FCC RPS No. 1)				
	<u>Zone C - Direct impacts to structure:</u> Rogerstown Viaduct (UBB36) (RPS No. 516); road bridge at Rogerstown Lane, Rogerstown	High	Low / Medium	Slight / Moderate, Negative, Long-term	Slight / Moderate, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	(RPS No. 287); Rush and Lusk Station (RPS No. 288)); road bridge at Tyrellstown (RPS No. 292); road bridge L1285, Ballykea (RPS No. 246); Skerries Railway Station and Station Master's House (RPS No.'s. 191 and 192); Ballbriggan Viaduct (UBB56) (RPS No. 36)				
	<u>Zone D - Indirect impacts</u> Knocknagin / Gormanston Viaduct (UBB65) (Meath RPS No. 91,050); Laytown Station Masters House (Meath RPS No. 91,072) and Stameen (Meath RPS No. 90,723).	High	Low	Slight, Negative, Long-term	Slight, Negative, Long-term
	<u>Zone D - Direct impacts:</u> Laytown Viaduct (UBB72) (Meath RPS No. 91,073)		Low / Medium	Slight / Moderate, Negative, Long-term	Slight / Moderate, Negative, Long-term
	<u>Zone E</u> Drogheda: Engine Shed (LCC RPS DB-395); Water Tower (LCC RPS DB-397); Parcel Office (LCC RPS DB-396); Boiler House (LCC	High	Medium,	Slight / Moderate, Negative, Long-term	Slight, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	RPS DB-398); and Toilet Building (LCC RPS DB-399)				
Amenity Designations	Fingal High Amenity Areas	High	Medium	Moderate, Negative, Long-term	Slight, Negative, Long-term
	Fairview Park	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	Clontarf Golf Club	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	Open Space at Carndonagh Lawn / St. Donagh's Road	High	Medium	Slight, Neutral, Long-term	Slight, Neutral, Long-term
	Broadmeadow Way Greenway	High	Low	Slight, Neutral, Long-Term	Slight, Neutral, Long-Term
	Rogerstown Park	Medium	Low	Slight, Negative, Long-term	Slight, Negative, Long-term
	Beaverstown Golf Course	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	Skerries Golf Course	High	Medium / High	Moderate / Significant, Negative, Long-term	Slight, Neutral, Long-term
	Old Ballast Pit	Low / Medium	Low	Slight, Negative, Long-term	Slight Negative, Long-term
	Public Realm Redevelopment, Quay Street and Environs, Balbriggan	High	High	Significant, Negative, Long-term	Slight, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	Meath High Amenity Area at Laytown	High	Medium	Moderate, Negative, Long-term	Moderate, Negative, Long-term
	Open space / riparian corridor west of Laytown Station	High	Medium	Moderate, Negative, Long-term	Slight, Negative, Long-term
	Open space designation north of railway on outskirts of Drogheda (adjacent to Cairnes Court)	Medium	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
	MacBride Pitch and Putt	Medium / High	Low	Moderate, Negative, Long-term	Slight, Neutral, Long-term
Tree Preservation Orders / Tree Protection Objectives	Trees of Special Amenity Value at Dublin Road Rail Bridge, Drogheda	High	High	Significant, Negative, Long-term	Moderate, Negative, Long-term
Preserved views / Scenic Views etc.	Bissetts Strand, Malahide	High	Medium	Slight, Negative, Long-term	Slight, Negative, Long-term
	Malahide Estuary	High	Medium	Slight, Negative, Long-term	Slight, Negative, Long-term
	Station Road R128 at Effelstown, in proximity to Rush and Lusk Station	High	Medium	Moderate, Negative, Long-term	Slight, Neutral, Long-term
	Unnamed road / Golf Links Road in Loughland; Ballaghstown	High	Negligible / Low	Imperceptible / Slight, Negative,	Imperceptible / Slight, Negative,

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	Lane in Baldongan; unnamed road / eastern edge of Milverton Demesne in Ardlagh; the R128 between Rush and Skerries; unnamed road in Strifeland; the beach front in Skerries			Long-term	Long-term
	R127 Skerries Road / Railway to Balbriggan	High	Medium	Moderate, Negative, Long-term	Moderate, Negative, Long-term
	The Bower, Balbriggan	High	Medium	Moderate, Negative, Long-term	Moderate, Negative, Long-term
	R132 Bremore	High	Medium / High	Moderate / Significant, Negative, Long-term	Slight, Negative, Long-term
	Laytown Strand (looking northwards along shore)	High	Negligible	Imperceptible, Neutral, Long-term	Imperceptible, Neutral, Long-term
Properties	Residential property east end McGrath's Lane with effects on access / planting during the Operational Phase	Medium / High	High	Moderate / Significant, Negative, Long Term	Moderate, Negative, Long-term
	Residential properties: at St. Mary's Villas; and south of Gormanston Station, impacted with land acquisition during the	Medium / High	High	Significant, Negative, Long-term	Moderate, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects (Pre-Mitigation)	Landscape / Townscape / Visual Effects (Post Mitigation)
	Operational Phase				
	Residential property west end McGrath's Lane with effects on access / planting during the Operational Phase	Medium / High	High	Moderate, Negative, Long Term	Slight / Moderate, Negative, Long-term
	Urban, suburban and rural properties along, fronting and viewing key offline proposals	Medium / High	Medium / High	Moderate / Significant, Negative, Long-term	Slight / Moderate, Negative, Long-term
	Residential properties impacted by utility diversions	Medium / High	Medium / High	Moderate / Significant, Negative, Long-term	Moderate, Negative, Long-term
	Non-residential properties with land acquisition during Operational Phase	Medium	High	Moderate, Negative, Long-term	Slight / Moderate, Negative, Long-term
	Urban, suburban and rural properties along, fronting and viewing the Proposed Development, excluding those adjacent to key offline proposals	Medium / High	Medium / (locally High)	Moderate, Negative, Long-term	Slight, Negative, Long-term
Trees and Vegetation		High	High	Significant, Negative, Long-term	Moderate, Negative, Long-term

15.7 Residual Effects

15.7.1 Construction Phase

Mitigation of landscape (townscape) and visual impacts during the Construction Phase is focused on ensuring protection of elements to be retained (e.g. mature trees) and providing for a degree of visual screening of particular aspects of the works (e.g. the Construction Compounds). Construction Phase effects are temporary or Short-term in nature and the proposed mitigation measures will be effective at ensuring adequate protection to features that are not identified for permanent removal as part of the works. However, it is acknowledged that for the most part effective Construction Phase mitigation for the majority of impacts on townscape and visual characteristics is neither possible nor practicable, for example, during the Construction Phase it is not possible to mitigate for the impact of the removal of mature trees to facilitate works. Therefore, Construction Phase impacts remain unchanged in the post-mitigation and monitoring scenario as set out in Section 15.5.1. Post-mitigation residual negative impacts of moderate or greater significance are set out in Table 15-10.

Table 15-10 Summary of Significant Residual Construction Phase Impacts

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Landscape, Townscape and Streetscape Character				
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)		High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border		High	Medium	Moderate, Negative, Temporary / Short-term
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)		Medium / High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
Landscape, Townscape and Streetscape Characteristics and Visual Impacts				
Architectural Conservation Areas (ACAs)	Central Malahide	Very High	Medium	Moderate, Negative, Temporary / Short-term
	Central Balbriggan.	High	Medium	Moderate, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	No.'s 1 – 6 Railway Terrace	High	High	Significant, Negative, Temporary / Short-term
Conservation Areas	River Tolka corridor, River Santry corridor, linear park at Donaghmede	High	Low	Slight, Negative, Temporary / Short-term
Protected Structures	Rail bridge at Grange / Maynetown (UBB19) (FCC RPS No. 919)	High	Negligible	Moderate, Negative, Temporary / Short-term
Protected structures	Malahide Railway Viaduct (UBB30) (FCC RPS No. 420)	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
	<u>Zone C - Direct impacts to structures:</u> Rogerstown Viaduct (UBB36) (RPS No. 516); road bridge at Rogerstown Lane, Rogerstown (OBB38) (RPS No. 287); Rush and Lusk Station (RPS No. 288); road bridge at Tyrellstown (RPS No. 292); road bridge L1285, Ballykea (OBB46) (RPS No. 246); Skerries Railway Station and Station Master's House (RPS No.'s. 191 and 192); and Ballbriggan Viaduct (UBB56) (RPS No. 36)	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Zone D - Direct impacts to structures: Laytown Viaduct (UBB72) (Meath RPS No. 91,073)		Medium / High	Moderate / Significant, Negative, Temporary / Short-term
	Zone E Drogheda MacBride Station including: Engine Shed (LCC RPS DB-395); Water Tower (LCC RPS DB-397); Parcel Office (LCC RPS DB-396); Boiler House (LCC RPS DB-398); and Toilet Building (LCC RPS DB-399)	High	Medium / High	Moderate, Negative, Temporary / Short-term
Amenity Designations	Fingal High Amenity Areas	High	Medium	Moderate, Negative, Temporary / Short-term
	Open Space at Carndonagh Lawn / St. Donagh's Road	High	Medium	Moderate, Negative, Temporary / Short-term
	Broadmeadow Way Greenway	High	Medium	Moderate, Negative, Temporary / Short-term
	Skerries Golf Course	High	Medium / High	Moderate / Significant, Negative, Temporary / Short-term
	Public Realm Redevelopment, Quay Street and Environs, Balbriggan	High	High	Significant, Negative, Temporary / Short-term
	Meath High Amenity Area at Laytown	High	High	Significant, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Open space / riparian corridor west of Laytown Station	High	Medium	Moderate, Negative, Temporary / Short-term
	MacBride Pitch and Putt	Medium / High	Medium	Moderate, Negative, Temporary / Short-term
Tree Preservation Orders / tree Protection Objectives	Trees of Special Amenity Value at Dublin Road Rail Bridge, Drogheda	High	High	Significant, Negative, Temporary / Short-term
Preserved views / Scenic Views etc.	Bissetts Strand, Malahide	High	Medium	Moderate, Negative, Temporary / Short-term
	Malahide Estuary	High	Medium	Moderate, Negative, Temporary / Short-term
	Station Road R128 at Effelstown, in proximity to Rush and Lusk Station	High	Medium	Moderate, Negative, Temporary / Short-term
	R127 Skerries Road / Railway to Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term
	The Bower, Balbriggan	High	Medium	Moderate, Negative, Temporary / Short-term
	R132 Bremore	High	High	Significant, Negative, Temporary / Short-term
Properties	Residential properties impacted with land acquisition during the Construction Phase	Medium / High	High	Significant, Negative, Temporary / Short-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Residential property west end McGrath's Lane with impacts on access / planting during the Construction Phase	Medium / High	High	Moderate / Significant, Negative, Temporary / Short-term
	Residential properties impacted by utility diversions	Medium / High	Medium / High	Moderate / Significant, Negative, Temporary
	Non-residential properties with land acquisition during Construction Phase	Medium	High	Moderate, Negative, Temporary / Short-term
	Urban, suburban and rural properties along, fronting and viewing the Proposed Development, excluding those adjacent to key offline works	Medium / High	Medium	Moderate, Negative, Temporary / Short-term
	Urban, suburban and rural properties along, fronting and viewing key offline works	Medium / High	High	Moderate / Significant, Negative, Temporary / Short-term
Trees and Vegetation		High	High	Significant, Negative Temporary / Short-term

15.7.2 Operational Phase

Following implementation and establishment of mitigation measures the landscape, townscape, streetscape and / or visual receptors assessed as having post-mitigation residual negative impacts of moderate or greater significance are set out in Table 15-11.

Table 15-11 Summary of Significant Residual Operational Phase Impacts (With mitigation at 15 years post-construction)

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
Landscape, Townscape and Streetscape Character				
Zone C: North of Malahide Viaduct to south of Gormanston Station (Fingal border)		High	Medium / High	Moderate, Negative, Long-term
Zone D: South of Gormanston Station (Fingal border) to Louth/Meath border		High	Medium	Moderate, Negative, Long-term
Zone E: Drogheda MacBride Station and surrounds (boundary of Louth approx. 1.5km southeast of Drogheda MacBride Station)		Medium / High	Medium / High	Moderate, Negative, Long-term
Landscape, Townscape and Streetscape Characteristics and Visual Impacts				
Architectural Conservation Areas (ACAs)	No.'s 1 – 6 Railway Terrace	High	High	Moderate, Negative, Long-term
Protected Structures	Malahide Railway Viaduct (UBB30) (FCC RPS No. 420)	High	Medium	Moderate, Negative, Long-term
Tree Preservation Orders / Tree Protection Objectives	Trees of Special Amenity Value at Dublin Road Rail Bridge, Drogheda	High	High	Moderate, Negative, Long-term
Amenity Designations	Meath High Amenity Area at Laytown	High	Medium	Moderate, Negative, Long-term
Preserved views / Scenic Views etc.	R127 Skerries Road / Railway to Balbriggan	High	Medium	Moderate, Negative, Long-term
	The Bower, Balbriggan	High	Medium	Moderate, Negative, Long-term
Properties	Residential property east end McGrath's Lane with effects on access / planting during the Operational Phase	Medium / High	High	Moderate, Negative, Long-term

Receptor		Baseline Landscape / Townscape Sensitivity	Magnitude of Change	Significance & Quality of Landscape / Townscape / Visual Effects
	Residential properties: at St. Mary's Villas; and south of Gormanston Station, impacted by land acquisition during the Operational Phase	Medium / High	High	Moderate, Negative, Long-term
	Residential properties impacted by utility diversions	Medium / High	Medium / High	Moderate, Negative, Long-term
Trees and Vegetation		High	High	Moderate, Negative, Long-term

15.7.3 Photomontages

Photomontages have been prepared from key or illustrative viewpoints across the full extent of the Proposed Development. These views assist in providing an indication of the changes and potential effects resulting from the Proposed Development during the Operational Phase after the implementation of the scheme. The proposed views are shown with proposed planting / mitigation at approximately 10 to 15 years post-completion of the Construction Phase. The photomontages have been prepared in accordance with the methodology set out in Section 15.3.3.1.9 and are included in Volume 3B of this EIAR.

15.8 Cumulative Effects

The cumulative assessment of relevant plans and projects is undertaken separately in Chapter 26 (Cumulative Effects) in Volume 2 of this EIAR.

15.9 References

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