

Chapter 17
Landscape
(Townscape)
& Visual

Contents

17. Landscape (Townscape) & Visual	1
17.1 Introduction	1
17.2 Methodology	1
17.2.1 Study Area	1
17.2.2 Relevant Legislation, Policy and Guidelines	2
17.2.3 Data Collection and Collation	3
17.2.4 Appraisal Method for the Assessment of Impacts	4
17.3 Baseline Environment.....	13
17.3.1 City Context	13
17.3.2 Overview of Route of the Proposed Scheme	13
17.3.3 Landscape, Townscape and Visual Planning Policy	13
17.3.4 Townscape / Streetscape Character	15
17.4 Potential Impacts	17
17.4.1 Characteristics of the Proposed Scheme	17
17.4.2 Do Nothing Scenario	22
17.4.3 Construction Phase	22
17.4.4 Operational Phase	27
17.5 Mitigation and Monitoring Measures	32
17.5.1 Construction Phase	32
17.5.2 Operational Phase	34
17.6 Residual Impacts	42
17.6.1 Construction Phase	42
17.6.2 Operational Phase	43
17.7 Conclusion	43
17.8 References	44

17. Landscape (Townscape) & Visual

17.1 Introduction

This Chapter of the Environmental Impact Assessment Report (EIAR) has considered the potential landscape (townscape) and visual impacts associated with the Construction and Operational Phases of the Liffey Valley to City Centre Core Bus Corridor Scheme (hereafter referred to as the Proposed Scheme).

During the Construction Phase, the potential landscape (townscape) and visual impacts associated with the development of the Proposed Scheme have been assessed. This included streetscape disturbance, impacts on property boundaries, removal of trees and vegetation, traffic issues and the general visual intrusion of construction activities due to utility diversions, road resurfacing and road realignments.

During the Operational Phase, the potential landscape (townscape) and visual impacts associated with changes to the physical layout of the street, alteration of views and the visual character and changes to the urban realm have been assessed.

The assessment has been carried out according to best practice and guidelines relating to landscape (townscape) and visual assessment, and in the context of similar large-scale infrastructural projects.

The aim of the Proposed Scheme when in operation is to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor. The objectives of the Proposed Scheme are described in Chapter 1 (Introduction). The Proposed Scheme, which is described in Chapter 4 (Proposed Scheme Description), has been designed to meet these objectives. The specific objective applicable to this assessment is:

- Ensure that the urban realm is carefully considered in the design and development of the transport infrastructure and seek to enhance key urban focal points where appropriate and practicable.

The design of the Proposed Scheme has evolved through a comprehensive design iteration with particular emphasis on minimising the potential for environmental impacts where practicable whilst ensuring the objectives of the Proposed Scheme are attained. In addition, feedback received from the comprehensive consultation programme undertaken throughout the option selection and design development process have been incorporated where appropriate.

17.2 Methodology

17.2.1 Study Area

The Proposed Scheme will commence on the Fonthill Road at the tie in point with the new Liffey Valley Shopping Centre Bus Interchange and Road Improvement Scheme. The Proposed Scheme will continue along Fonthill Road where it will turn left onto Coldcut Road and continues to the bridge over the M50, subsequently turning right onto Ballyfermot Road. The Proposed Scheme will travel through Ballyfermot Village and continue onto Sarsfield Road.

The Proposed Scheme will continue along Sarsfield Road, turning right at the junction with Con Colbert Road before turning right again onto Grattan Crescent. The Proposed Scheme will then turn left onto Emmet Road and will continue along Old Kilmainham, Mount Brown, James's Street and Thomas Street. At Cornmarket, the Proposed Scheme will turn right onto High Street. At the junction with Nicholas Street and Winetavern Street the Proposed Scheme will tie into the existing traffic management regime in the City Centre.

A detailed description of the Proposed Scheme is provided in Chapter 4 (Proposed Scheme Description).

The primary study area is a boundary-to-boundary road / street corridor along the Proposed Scheme, which incorporates the immediately adjoining landscapes, 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 Scheme (refer to Figure 17.1 in Volume 3 of this EIAR).

17.2.2 Relevant Legislation, Policy and Guidelines

This assessment has been carried out with reference to the following legalisation, policy and guidelines:

17.2.2.1 Legislation

- Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (hereafter referred to as the Environmental Impact Assessment (EIA) Directive);
- Planning and Development Act 2000, as amended;
- Planning and Development Regulations 2001, as amended; and
- European Landscape Convention 2000.

17.2.2.2 Policy

- South Dublin Development Plan 2016 – 2022 (SDCC 2016);
- Dublin City Development Plan 2016-2022 (DCC 2016a);
- Dublin City Tree Strategy 2016-2020 (DCC 2016b);
- Dublin City Parks Strategy 2019-2022 (DCC 2019);
- Department of Transport (DoT) National Cycle Policy Framework (DoT 2009); and
- National Transport Authority (NTA) Greater Dublin Area, Cycle Network Plan (NTA 2013).

It is noted that Dublin City Development Plan 2022-2028 is in a draft stage (Stage 2) undergoing review and public consultation. South Dublin Development Plan 2022-2028 is also in a draft stage (Stage 3) currently undergoing material amendments. Both are planned to come into force in 2022.

17.2.2.3 Guidelines

- Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022);
- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) Guidelines for Landscape and Visual Impact Assessment (hereafter referred to as the GLVIA) 3rd edition (Landscape Institute and IEMA 2013);
- Landscape Institute Technical Information Note 05/2017 (Revised 2018) on Townscape Character Assessment (hereafter referred to as the 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 (hereafter referred to as the GEIA) (DHPLG 2018); and
- 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 (EPA 2022) provide a general methodology, impact ratings and assessment structure applicable across all environmental assessments, the GLVIA (Landscape Institute and IEMA 2013) provides specific guidance for landscape and visual impact assessments. The TCA (Landscape Institute 2018) 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 (EPA 2022) and in the GLVIA (Landscape Institute and IEMA 2013), supported by the TCA (Landscape Institute 2018) and the professional experience and expertise of the assessor, is utilised in the landscape and visual assessment.

17.2.2.4 Key Definitions

The following key definitions are relevant to the methodology for the landscape and visual impact assessment:

Landscape: *'means an area, as perceived by people, whose character is the result of the action and interaction of natural and / or human factors'* (European Landscape Convention 2000).

Townscape: *'the landscape within the built-up area, including the buildings, the relationship between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces'* (Landscape Institute and IEMA 2013). Different combinations and spatial distribution of these elements create variations in townscape character. In this assessment 'Townscape' is used to describe built-up areas of a medium to large extents, generally equivalent to neighbourhood scale or larger.

Streetscape: *'The term 'streetscape' refers to the design quality of the street and its visual effect, particularly how the paved area (carriageway and footway) is laid out and treated.'* (CABE and ODPM 2002). Streetscape *'is a term used to describe the natural and built fabric of the street'* (Torbay Streetscape Guidelines 2004). Streetscape represents a smaller scale pattern or combination of elements and features than 'townscape'. In this assessment 'streetscape' is used to define built up areas of largely public space within the confines of a street or road corridor.

Landscape Character Assessment: *'is the process of identifying and describing variation in the character of the landscape. It seeks to identify and explain the unique combination of elements and features (characteristics) that make landscapes distinctive'* (Natural England 2014).

Landscape Character Types: *'are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use, and settlement pattern'* (Natural England 2014).

Landscape Character Areas: *'are single unique areas which are the discrete geographical areas of a particular landscape type. Each will have its own individual character and identity, even though it shares the same generic characteristics with other areas of the same type'* (Natural England 2014).

Landscape and Visual Impact Assessment: *'is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right, and on people's views and visual amenity'* (Landscape Institute and IEMA 2013).

Townscape Impact Assessment: *'identifies the changes to townscape character which would result from the Proposed Scheme and assesses the significance of those effects on the townscape as a resource'* (Landscape Institute 2018).

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 (Landscape Institute and IEMA 2013).

Landscape *impact* vs. landscape *effect*: *'Impact'* is defined as the action being taken, whilst *'effect'* is defined as the result (change or changes) of that action, e.g. the 'impact' of the additional green space treatment where a roundabout has been converted to a signalised junction has a significant positive 'effect' on the character of the streetscape.

17.2.3 Data Collection and Collation

Data collection and collation is based on initial desk studies, supported by full route walkovers and augmented by further specific site reviews, along the corridor of the Proposed Scheme, together with the selection and preparation of verified Photomontages of the Proposed Scheme in Figure 17.2 in Volume 3 of this EIAR.

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

- South Dublin Development Plan 2016-2022 (SDCC 2016);
- Dublin City Development Plan 2016-2022 (DCC 2016a);
- 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, Google Maps);
- Mapping of the Proposed Scheme;
- Landscaping General Arrangement Drawings (BCIDB-JAC-ENV_LA-0007_XX_00-DR-LL-9001 in Volume 3 of this EIAR), including chainages referenced throughout this Chapter;
- Other reports and documents relating to the baseline environment, including other chapters of this EIAR, and in particular, Chapter 4 (Proposed Scheme Description), Chapter 5 (Construction), Chapter 12 (Biodiversity), Chapter 15 (Archaeological & Cultural Heritage) and Chapter 16 (Architectural Heritage);
- Review of baseline information, including road infrastructure audits, Tree Survey Plans and Arboricultural Impact Assessment Report, and drone survey imagery; and
- Review of contextual information relating to the development of the Proposed Scheme - Urban Realm Concept Designs (NTA 2020).

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

- Full walkover surveys of the route of the Proposed Scheme;
- Further field surveys to verify conditions at specific areas along the route of the Proposed Scheme; and
- Selection of locations for verified Photomontages of the Proposed Scheme.

The information collected during the desk study and field surveys has been collated and presented in Section 17.3 of this Chapter.

The publicly available datasets listed in Table 17.1 have been consulted in the analysis of the baseline environment. These were accessed in 2020 / 2021.

Table 17.1: Publicly Available Datasets

Source	Name	Description
Ordnance Survey Ireland (OSI)	Geohive	Current and historical mapping
OSI	Geohive	Historical aerial imagery
Google	Google Maps	Mapping and aerial imagery
Microsoft	Bing	Mapping and aerial imagery
EPA	EPA Maps	Environmental datasets
National Parks and Wildlife Service (NPWS)	NPWS Maps and Data	Datasets provides information on national parks, protected sites and nature reserves
Department of Culture, Heritage and the Gaeltacht (DCHG)	Historic Environment Viewer	Database provides access to National Monuments Service Sites and Monuments Record (SMR) and the National Inventory of Architectural Heritage (NIAH)

17.2.4 Appraisal Method for the Assessment of Impacts

As noted under Section 17.2.2.4 in preparing the landscape (townscape) and visual impact assessment this Chapter utilises a combination of approaches as outlined in the EPA Guidelines (EPA 2022) and in the GLVIA (Landscape Institute and IEMA 2013), supported by the TCA (Landscape Institute 2018) and the professional experience and expertise of the author.

The EPA Guidelines provide a generalised methodology suitable for guiding the range of environmental assessments that are carried out under the EIA process, whereas GLVIA provides guidance that is specifically relevant to landscape and visual impact assessment. GLVIA has been used in this assessment to inform the methodology in direct relation to assessing landscape and visual sensitivity, magnitude of change and effects. In order to provide an assessment of effects which is comparable to other types of environmental assessment it is necessary to use the significance criteria specified in the EPA guidelines. A matrix showing the relationship between sensitivity, magnitude and effect significance has been adapted from Figure 3.5 in the EPA Guidelines

(EPA 2022) and is shown in Diagram 17.1 Landscape and Visual Impact Assessment Criteria (refer to Section 17.2.4.2.3). This matrix differs from the EPA Guidelines in that a 'very high' level of both magnitude and sensitivity has been included, the intention of which is to create an extra degree of definition to help distinguish between impacts that would lead to either Significant, Very Significant and Profound levels of effect. In addition to predicting the significance of the effects, EIA methodology (EPA 2022) requires that the quality of the effects be classified as positive / beneficial, neutral, or negative / adverse.

A detailed description of the Proposed Scheme is provided in Chapter 4 (Proposed Scheme Description). The landscape (townscape) and visual impact assessment has assessed the Proposed Scheme including the provision of the landscape design and urban realms elements.

17.2.4.1 Landscape, Townscape and Streetscape

Existing guidance requires that effects on townscape 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 Directive 2014/52/EU and as defined in Section 17.2.2.4, is an overarching term relating to both rural and built-up (urban) areas. However, use of the term townscape as defined in Section 17.2.2.4, is considered appropriate where it relates to urban or built-up landscapes, such as those relevant to the baseline environment of the Proposed Scheme. For the purposes of this assessment 'townscape' will be used to refer to medium to large scale areas of built-up landscapes, generally equivalent to neighbourhood scale or larger.

In addition, the Proposed Scheme is a corridor-based scheme utilising primarily existing roads or streets within the existing developed urban or built environment. In this regard terms 'street' and 'streetscape', as defined in Section 17.2.2.4 and below, are also important components of the receiving environment for the Proposed Scheme.

'Street' is defined as:

'a multi-functional space, providing enclosure and activity as well as movement. Its main functions are:

- *circulation, for vehicles and pedestrians*
- *access to buildings, and the provision of light and ventilation for buildings*
- *a route for utilities*
- *storage space, especially for vehicles*
- *public space for human interaction and sociability; everything from parades and protests to chance encounters*

Virtually all streets in urban areas perform all of these functions, and often the balance between them will vary along the length of the street. Ideally, all these facets of the street can successfully coexist, but all too often it is one function (especially the movement of vehicles) which has been allowed to dominate. Getting the balance right at the right place is critical because streets are the most important part of the public realm, and thus are fundamental to how we live together in towns and cities.' (CABE and ODPM 2002)

'Streetscape' is defined as:

'The term 'streetscape' refers to the design quality of the street and its visual effect, particularly how the paved area (carriageway and footway) is laid out and treated.' (Paving the Way, CABE 2002).

'[Streetscape] is a term used to describe the natural and built fabric of the street' (Torbay Council 2004).

'The main indicators of quality, which are the test of successful streetscape, can be listed under six headings:

- *Comfortable and safe for pedestrians and the disabled*
- *A street designed to accommodate all sorts of functions, not dominated by any one function*

- *Visually simple, and free of clutter. Regardless of whether a street is a straightforward or complex space, what matters is the simplicity and clarity of its paving, street furniture, lighting and landscaping*
- *Well cared for, and where utilities or 'extraneous' advertising are subordinate to all other street functions*
- *Sympathetic to local character and activity context, in design and detail; and*
- *Making appropriate ordered provision for access, deliveries and storage of vehicles' (CABE and ODPM 2002).*

The importance of soft landscaping in the streetscape is emphasised in the Manual for Streets (Department for Transport 2007):

'Planting adds value; it helps to soften the urban street-scene, creates visual and sensory interest, and improves the air quality and microclimate. It can also provide habitats for wildlife. The aromatic qualities or contrasting colours and textures of foliage are of value to all, and can assist the navigation of those with visual impairment. Flowers and fruit trees add seasonal variety. Planting can provide shade, shelter, privacy, spatial containment and separation. It can also be used to create buffer or security zones, visual barriers, or landmarks or gateway features. Vegetation can be used to limit forward visibility to help reduce vehicle speeds.'

As defined in Section 17.2.2.4, the term 'streetscape' represents a smaller-scale pattern of elements and features compared to 'townscape' and is used to define built-up areas of largely public space within the confines of a street or road corridor. Therefore, this assessment refers to 'townscape' in describing the wider urban or built-up landscape, and to 'streetscape' in describing the immediate landscape corridor of the Proposed Scheme.

17.2.4.2 Methodology for Assessment of Townscape Effects

Assessment of potential townscape effects involves:

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

These factors are combined to provide a classification of significance of effects of the Proposed Scheme.

17.2.4.2.1 Methodology for Assessment of Townscape Sensitivity

The sensitivity of the townscape is a function of its existing land use, patterns and scale, enclosure, visual characteristics and value. The nature and scale of the Proposed Scheme is taken into account, as are trends of change (i.e. on-going changes in the environment) and the relevant policy framework. Five categories are used to classify sensitivity, as set out in Table 17.2.

Table 17.2: Townscape Sensitivity

Sensitivity	Description
Very High	Areas where the townscape exhibits very strong, positive character with valued elements, features and characteristics that combine to give an experience of unity, richness and harmony. The townscape character is such that its capacity to accommodate change is very low. These attributes are recognised in policy or designations as being of national or international value and the principal management objective for the area is protection of the existing character from change.
High	Areas where the townscape exhibits strong, positive character with valued elements, features and characteristics. The townscape character is such that it has limited / low capacity to accommodate change. These attributes are recognised in policy or designations as being of national, regional or county value and the principal management objective for the area is the conservation of existing character.
Medium	Areas where the 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 townscape character is such that there is some capacity for change. These areas may be recognised in policy at local or county level and the principal management objective may be to consolidate townscape character or facilitate appropriate, necessary change.
Low	Areas where the townscape has few valued elements, features or characteristics and the character is weak. The character is such that it has capacity for change; where development would make no significant change or would make a positive change. Such 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 townscape exhibits negative character, with no valued elements, features or characteristics. The character is such that its capacity to accommodate change is high; where development would make no significant change or would make a positive change. Such townscapes include derelict industrial lands, as well as sites or areas that are designated for a particular type of development. The principal management objective for the area is to facilitate change in the townscape through development, repair or restoration.

As adapted from GLVIA (Landscape Institute and IEMA 2013)

17.2.4.2.2 Methodology for Assessment of Magnitude of Change in the Townscape

Magnitude of change is a factor of the scale, extent and degree of change imposed on the townscape by the Proposed Scheme, with reference to its key elements, features and characteristics and the affected surrounding character areas (collectively termed ‘townscape receptors’). Five categories are used to classify magnitude of change, as set out in Table 17.3.

Table 17.3: Magnitude of Townscape Change

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

As adapted from GLVIA (Landscape Institute and IEMA 2013)

17.2.4.2.3 Methodology for Assessment of Significance of Effects

To classify the significance of effects, the magnitude of change is measured against the sensitivity of the townscape based on Figure 3.5 in the EPA Guidelines (EPA 2022), as adapted and presented in Diagram 17.1. Details of the adaption from the guidelines is covered in Section 17.2.4.

Determining the significance of impacts that are rational and justifiable is also based on the professional judgement, expertise and experience of the author.

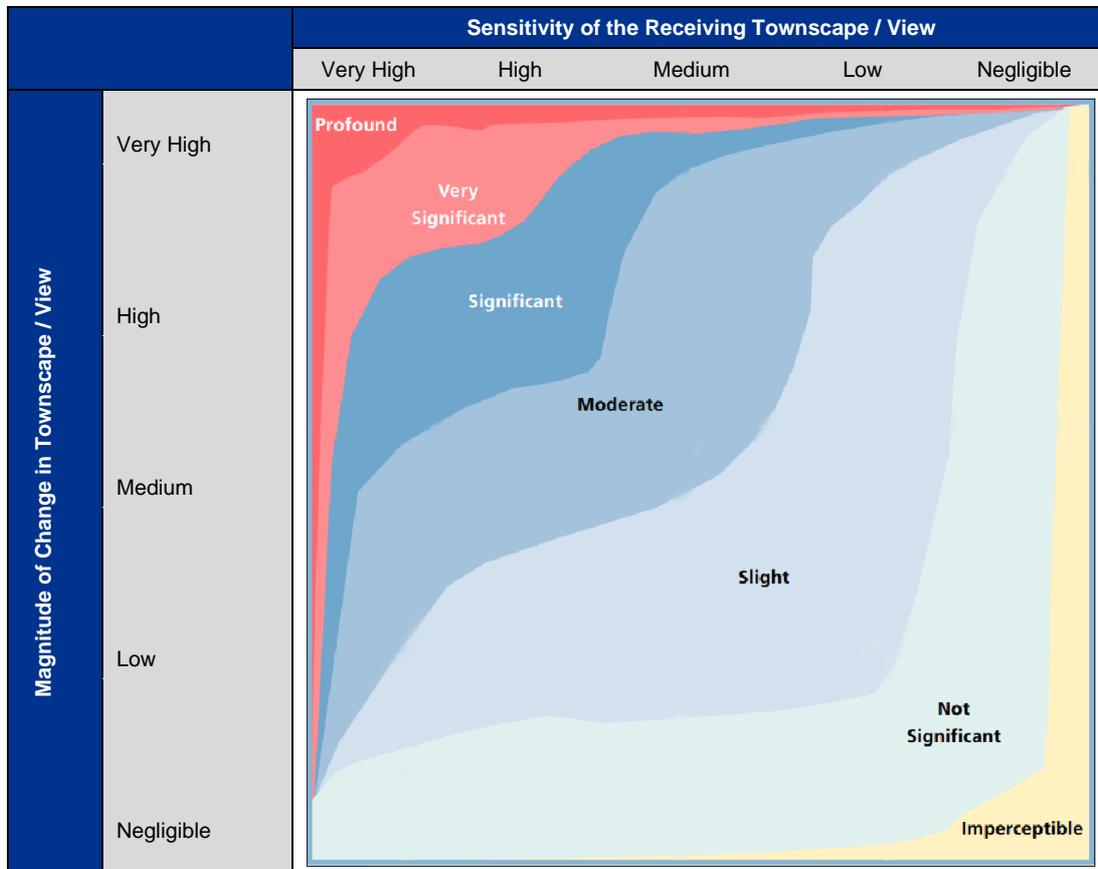


Diagram 17.1: Guide to Classification of Significance of Townscape and Visual Impacts; as adapted from EPA Guidelines (EPA 2022)

17.2.4.2.4 Quality, Duration and Frequency of Landscape and Visual Effects

Consideration of quality (i.e. positive, neutral, negative), 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)) and frequency of effects, is as described in Table 3.4 of the EPA Guidelines (EPA 2022).

17.2.4.2.5 Geographical Extents of Townscape and Visual Effects

The geographical area over which the landscape effects will be felt must also be considered. This is distinct from the size or scale of the effect – there may for example be moderate loss of landscape elements over a large geographical area, or a major addition affecting a very localised area. Where townscape or visual receptors cover a large geographical area, it is often necessary to describe the local effect and the overall effect separately. The terms ‘local’, ‘locally’ or ‘localised’ are used within this assessment to denote effects which occur within the relatively small area or section of a receptor in proximity to the Proposed Scheme. The term ‘overall’ is used to describe the effect on the receptor as a whole.

17.2.4.2.6 Significance and Quality of Landscape and Visual Effects

An effect 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 with an associated significant effect. However, the significant effect may be positive, in that the structure enhances the landscape / townscape or visual quality of the receiving environment; negative in that it detracts from the receiving environment; or neutral in that despite the significant change, any negative and positive aspects are balanced or cancelled. Significant neutral effects

can occur over time, where a development or structure, which initially created a significant change in the receiving environment, is increasingly accepted as part of the receiving landscape / townscape / view.

17.2.4.3 Views and Visual Amenity

As noted in Section 17.2.2.4 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 from within the urban realm and private areas or properties. As such, the primary study area is a boundary-to-boundary road / street corridor along the Proposed Scheme, which takes in immediately adjoining landscapes, including open spaces, parks, gardens, and other land use areas, together with amenity, landscape / townscape and visual planning considerations.

17.2.4.4 Methodology for Assessment of Visual Effects

Assessment of visual effects involves identifying a number of key / representative viewpoints in the baseline environment of the Proposed Scheme, 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 Scheme on each viewpoint.

17.2.4.4.1 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. The level of awareness of people to views also affects susceptibility; people engaged in activities reliant on appreciation of views are of higher susceptibility than those focused on other activities. Visual receptors most susceptible to change include residents at home, people engaged in outdoor recreation focused on the landscape (e.g. park / walk users), or where the appreciation of views over the landscape are a key factor contributing to the quality of the activity. Visual receptors less susceptible to change include travellers on road, 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. Visual receptors of moderate susceptibility include users of the streetscape such as non-recreational pedestrians and cyclists whose activity is not dependent on appreciation of the views but may have a greater awareness of the townscape by virtue of their slower speed and people engaged in outdoor recreation where the surrounding landscape does not influence the experience, and people in their place of work or shopping. Visual receptors least susceptible to change include travellers on road, rail and other transport routes generally travelling at speed (unless on recognised scenic routes); and
- 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, protected 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 17.4.

Table 17.4: Categories of Viewpoint / Visual Receptor Sensitivity

Sensitivity	Description
Very High	Views or viewpoints (views towards or from a 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 changes which would affect the valued or designated features of the view.

Sensitivity	Description
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 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. 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 townscape character. The principal management objective is to facilitate change to the composition that does not detract from visual amenity, or which enhances it.
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. Visual receptors may include fast moving users of roads / rail through landscapes / townscapes which may or may not contain valued elements or characteristics. 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 value or where 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.

As adapted from GLVIA (Landscape Institute and IEMA 2013)

17.2.4.4.2 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 Scheme 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 Table 17.5.

Table 17.5: Categories of Magnitude of Visual Change

Magnitude	Description
Very High	Full or extensive 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.

As adapted from GLVIA (Landscape Institute and IEMA 2013)

17.2.4.4.3 Methodology for Assessment of Significance of Visual Effects

As with 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 Diagram 17.1.

17.2.4.5 Quality of Effects

In addition to predicting the significance of the effects, EIA methodology (EPA 2022) requires that the quality of the effects be classified as positive / beneficial, neutral, or negative / adverse. For townscape to a degree, but particularly for visual effects, this will involve a degree of subjectivity. This is because 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 Scheme may differ from another person's, and thus their response to the effects on the townscape or a view may vary.

Additionally, in certain situations there might be policy encouraging a particular development in an area, in which case the policy is effectively prescribing a degree of townscape and visual change. If the Proposed Scheme achieves the objective of the policy the resulting effect might be considered positive, even if existing townscape character or views are significantly altered. The classification of quality of townscape and visual effects seeks to take these variables into account and provide for a rational and robust assessment.

17.2.4.6 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 Scheme. Construction effects are described based on a cautionary principal; 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.

17.2.4.7 Presentation of Operational Effects

The design process of the Proposed Scheme has included integrated landscape measures to avoid, reduce or remediate landscape (townscape) and visual effects wherever practicable. The scheme will become established and increasingly integrated within its landscape (townscape) setting over time, and the potential negative operational effects will be reduced. To illustrate this change in effects, potential Operational effects are outlined for the beginning of the Operational Phase (up to 1 year Post-Construction Phase) and for the beginning of the Long-Term (at 15 years Post-Construction Phase). Predicted residual Operational Phase Effects which have greater than moderate significance, at 15 years Post-Construction Phase, are also outlined.

The Operational Phase effects are presented as follows:

- Potential Operational Phase Effects (early stage - at 1 year post completion of the Construction Phase) – refer to Table 17.8;
- Potential Operational Phase Effects (comparison of effects at 1 year post completion and at 15 years post-Construction Phase) – Refer to Table 17.10; and
- Predicted residual Operational Phase Effects (those effects above moderate significance at 15 years post-Construction Phase) – Refer to Table 17.12.

17.2.4.8 Photomontage Methodology

The methodology for the preparation of Photomontages has 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.

17.2.4.8.1 Photography

17.2.4.8.1.1 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.

17.2.4.8.1.2 Camera and Camera Set-Up

Baseline photographs have been taken using a digital single-lens reflex (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.

17.2.4.8.1.3 Lenses

Prime lenses (fixed focal length with no zoom function) have been 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. Generally within an urban or suburban context, a 24mm prime lens has been used. 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 in urban settings. For some viewpoints considering middle to distant intervention, a 50mm prime lens may have been used, capturing a 39° horizontal field of view.

17.2.4.8.2 Survey

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

17.2.4.8.3 3D Modelling and Camera Matching

17.2.4.8.3.1 Creation of 3D Model

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

17.2.4.8.3.2 3D Camera Positions

The coordinates of the camera and 'reference points' for each view have been 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 have been set to match that of the baseline photograph so as to ensure the sunlight and shadow projections in the renderings generated match those of the baseline photographs.

17.2.4.8.3.3 Rendering of 3D Model and Finishing Photomontages

For each view a high-resolution render of the Proposed Scheme has been 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 Scheme has then been 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 Scheme. 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 Scheme at a stage approximately 10 to 15 years post completion of construction.

17.2.4.8.4 Presentation and Viewing

Individual photomontages are presented, in 'as existing' and 'as proposed' versions, on A3 pages in landscape format in Figure 17.2 in Volume 3 of this EIAR. For each photomontage, the viewpoint number, location description, and the date and time of photography have been provided on the page.

17.3 Baseline Environment

17.3.1 City Context

The Proposed Scheme will commence on the Fonthill Road at the tie in point with the new Liffey Valley Shopping Centre Bus Interchange and Road Improvement Scheme. It will then be routed along Coldcut Road and Ballyfermot Road to the junction with Sarsfield Road. From here, the Proposed Scheme will be routed via Sarsfield Road, the R839 along Grattan Crescent, along Emmet Road, Old Kilmainham, Mount Brown, James's Street, Thomas Street, Cornmarket and along High Street to the junction of Christchurch Place where it will join the existing traffic management regime in the City Centre.

The Proposed Scheme is sub-divided into three sections:

- Section 1: Liffey Valley to Le Fanu Road;
- Section 2: Le Fanu Road to Sarsfield Road; and
- Section 3: Sarsfield Road to City Centre.

An overview of the Proposed Scheme is provided in Section 17.3.2 and a detailed description of the Proposed Scheme is provided in Chapter 4 (Proposed Scheme Description)

17.3.2 Overview of Route of the Proposed Scheme

The Proposed Scheme will be approximately 9.2km in length, commencing on the Fonthill Road at the tie in point with the new Liffey Valley Shopping Centre Bus Interchange and Road Improvement Scheme. The Proposed Scheme will run east along Coldcut Road crossing the M50 on the existing overbridge and on to the junction with Ballyfermot Road. Turning east on Ballyfermot Road, the Proposed Scheme will pass Cherry Orchard Hospital and through the residential suburb of Ballyfermot. The Proposed Scheme will then pass the Church of Our Lady of the Assumption at the Ballyfermot Road / Kylemore Road roundabout, and there will be works on the Proposed Scheme which will extend north along Kylemore Road to Le Fanu Road junction. The Proposed Scheme will continue along Ballyfermot Road, passing the former De La Salle School grounds, to Sarsfield Road at the junction with St. Laurence Road beside Longmeadows Park and Pitch & Putt grounds.

The Proposed Scheme will follow Sarsfield Road and also ties-in to the existing road at Con Colbert Road. The Proposed Scheme will continue along Sarsfield Road passing beneath the existing narrow railway overbridge and extending along Inchicore Road to Memorial Road where it will tie into the Lucan to City Centre Core Bus Corridor at Con Colbert Road. From Inchicore Road, the Proposed Scheme will continue south along the tree-lined corridor of Grattan Crescent and will turn east along Emmet Road. The Proposed Scheme will continue east onto Old Kilmainham and Mount Brown, passing St. James's Hospital and the notable Mount Brown residential enclave. The Proposed Scheme continues along the City Centre urban corridor of James's Street, Thomas Street and onto the historic Cornmarket and High Street.

The Proposed Scheme includes a wide variety of suburban and city landscape, townscape and visual features from streetscape boundary and urban realm features, to residential and mixed-use zonings, historic landscapes and boundaries, to biodiversity and heritage assets.

17.3.3 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.

17.3.3.1 South Dublin Development Plan 2016 - 2022

The South Dublin Development Plan 2016 – 2022 (SDCC 2016) is the higher county level planning framework applicable to the extent of the western section of the Proposed Scheme.

Chapter 6 Transport and Mobility of the Development Plan includes for policies and objectives in relation to public transport, walking and cycling and strategic cycle networks. The strategic networks include primary routes (e.g. links to Dublin City Centre from major urban centres including Liffey Valley).

Chapter 8 Green Infrastructure of the Development Plan sets out policies and objectives in relation to appropriate development, enhancement and protection of green infrastructure networks, including green infrastructure in urban areas, watercourse network, public open space hierarchy and landscape setting and sustainable drainage systems (SuDS).

Chapter 9 Heritage, Conservation and Landscapes of the Development Plan sets out policies and objectives in relation to the protection and enhancement of built heritage and architectural conservation, landscapes, natural heritage sites, public rights of way, Tree Preservation Orders (TPOs), cultural heritage and sites of geological heritage. There are no Architectural Conservation Areas, Conservations Areas or Prospects to Preserved and Protected along this section of the Proposed Scheme. Likewise there are no TPOs along this section of Proposed Scheme. Schedule 2 of Development Plan includes the Record of Protected Structures. There are no protected structures along this section of the Proposed Scheme (that passes through SDCC).

Policies in relation to biodiversity as they relate to the Proposed Scheme are discussed in greater detail in Chapter 12 (Biodiversity) of this EIAR. Policies in relation to archaeological and architectural heritage as they relate to the Proposed Scheme are discussed in greater detail in Chapter 15 (Archaeological & Cultural Heritage) and Chapter 16 (Architectural Heritage) respectively of this EIAR.

The principal land use zonings to either side of the Proposed Scheme within the South Dublin County area are:

- Objective 'RES': *'To protect, provide and/or improve residential amenity'*;
- Objective 'HA-LV': *'To protect and enhance the outstanding character and amenity of the Liffey Valley'* (i.e. majority of lands north of N4);
- Objective 'OS': *'To preserve and provide for open space and recreational amenities'* (i.e. Cold Cut Club, Palmers Estate, and along Ballyfermot Road at Chery Orchard Hospital);
- Objective 'MRC': *'To protect, improve and provide for the future development of a Major Retail Centre'* (i.e. Liffey Valley Shopping Centre);
- Objective 'REGEN': *'To facilitate enterprise and/or residential-led regeneration'*; and
- Objective 'EE': *'To provide for enterprise and employment related uses'*.

17.3.3.2 Dublin City Development Plan 2016 - 2022

The Dublin City Development Plan 2016 – 2022 (DCC 2016a) is the higher county level planning framework applicable to central and eastern section of the Proposed Scheme.

Figure 4 of the Development Plan indicates that there are no Key Views and Prospects pertaining to the Proposed Scheme.

Chapter 10 Green Infrastructure, Open Space and Recreation of the Development Plan 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 and sport, recreation and play within the city. The strategic green network as indicated on Figure 14 of the Development Plan highlights public open spaces along the Proposed Scheme. Public open spaces are located at Markievicz Park, Longmeadows Park, Grattan Crescent Park, Cammock River Corridor and St. Audoen's Park. Figure 15 identifies a 'Proposed Green Route' along the corridor of the Proposed Scheme from Kilmainham to High Street. Dublin City Council has also prepared separate overarching strategies for the protection, management and improvement of Trees and Parks within the city.

Chapter 8 of the Development Plan sets out policies relating to the provision of sustainable transport infrastructure (DCC2016a). Relevant policies include:

- Policy MTO9 – This aims ‘*To develop, within the lifetime of this plan, the Strategic Cycle Network for Dublin city - connecting key city centre destinations to the wider city and the national cycle network*’; and
- Policy MTO10 – This aims ‘*To improve existing cycleways and bicycle priority measures throughout the city, and to create guarded cycle lanes, where appropriate and feasible*’.

Chapter 11 Built Heritage and Culture of the Development Plan sets out policies relating to preservation, protection and improvement of built heritage, Record of Protected Structures (RPS), Architectural Conservation Areas (ACA) and Conservation Areas (CA), trees in ACAs, zones of archaeological interest and industrial heritage, monuments and Dublin’s cultural assets. There are a number of sites, buildings and features of historic and heritage interest located along the corridor of the Proposed Scheme, including an Architectural Conservation Area at Thomas Street / Cornmarket and Conservation Area along James’s Street, Thomas Street, Cornmarket and High Street. There are Residential Conservation Areas at Nos.1 & 2 St. Andrew’s / 279, 279A & 279B Sarsfield Road; at Sarsfield Road / Inchicore Terrace / Grattan Crescent; at Mount Brown Kilmainham; and at St. Catherine’s Church of Ireland Thomas Street.

Protected structures are located at the former De La Salle School, Oak House and Floraville Entrance Sarsfield Road, The Great Southern & Western Railway House (Cleary’s) Sarsfield House, Inchicore National School, St. Michael’s Church Bulfin Road, as are many buildings / structures along James’s Street, Thomas Street, Cornmarket and High Street.

Policies in relation to archaeological and architectural heritage, including definitions of heritage features e.g. protected structures, as they relate to the Proposed Scheme are discussed in greater detail in Chapter 15 (Archaeological & Cultural Heritage) and Chapter 16 (Architectural Heritage) respectively of this EIAR.

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

- Objective Z1: ‘*To protect, provide and improve residential amenities*’;
- Objective Z2: ‘*To protect and / or improve the amenities of residential conservation area*’ (e.g. Sarsfield Road / Grattan Crescent, Mount Brown);
- Objective Z4: ‘*To protect for and mixed use facilities*’ (e.g. Ballyfermot Road (Le Fanu Road to Kylemore Road), Grattan Crescent);
- Objective Z5: ‘*To consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen and protect its civic design character and dignity*’ (James’s Street / Thomas Street / High Street);
- Objective Z9: ‘*To preserve, provide and improve recreational amenity and open space and open space network*’ (i.e. Markievicz Park, Grattan Crescent Park, Cammock River Valley); and
- Objective Z15: ‘*To protect and provide for institutional and community uses*’ (e.g. Ballyfermot Centre of Further Education, St. Michael’s & Gabriel’s NS, De La Salle, St. James’s Hospital).

17.3.4 Townscape / Streetscape Character

The townscape and streetscape character of the Proposed Scheme is described in Table 17.6 with reference to landscape, townscape and visual characteristics, features, designations, and sensitivities. The key features are identified on Figure 17.1 in Volume 3 of this EIAR. Protected structures are generally described within groups e.g. a number of buildings lining a road, but are noted individually where they form unique and prominent features in the townscape or streetscape, or form a less noticeable but intrinsic part of the fabric of the streetscape. Refer to Chapter 15 (Archaeological & Cultural Heritage) and Chapter 16 (Architectural Heritage) of this EIAR, for full details and definitions of protected structures.

Table 17.6: Analysis of Baseline Townscape and Visual Environment of the Proposed Scheme

Proposed Scheme Character Areas	Baseline Description	Baseline Sensitivity
<p>Liffey Valley to Le Fanu Road (For baseline features refer to Figure 17.1, Sheets 1 to 5 of 13 in Volume 3 of this EIAR)</p>	<p>Townscape Character: Outer city suburbs predominantly of traditional two-storey residential estates with open spaces to either side of established mixed use village street. Major retail at Liffey Valley and some large scale industrial / institutional lands west of Ballyfermot</p> <p>Streetscape Character: Major suburban road corridor with larger scale land uses west of established Ballyfermot Village which lines both sides of a major street. Young street trees line sections of the road and mature trees back to short sections of road corridor from open spaces and properties. Generally two-storey development to either side.</p> <p>Key Townscape Features: Traditional suburbs with linear village, large retail area (Liffey Valley Shopping Centre) at eastern end and some large scale land uses at Cherry orchard Hospital and Cherry Orchard Industrial Estate.</p> <p>Amenity Designations: No architectural conservation areas, conservation areas or residential conservation areas. Some areas of verge adjacent to the Coldcut Club, Palmers residential estate, in narrow areas along Ballyfermot Road, at Blackditch estate, at Ballyfermot Community Civic Centre.</p> <p>Tree Preservation Order (TPO): None.</p> <p>Tree / Woodland Preservation Objectives: None.</p> <p>Protected Views: None.</p> <p>Protected Structures: None (refer to Chapter 16 (Architectural Heritage) for full details).</p> <p>Other: The linear nature of Ballyfermot Village</p>	<p>Medium / High</p>
<p>Le Fanu Road to Sarsfield Road (For baseline features refer to Figure 17.1, Sheets 5 to 8 of 13 in Volume 3 of this EIAR)</p>	<p>Townscape Character: Outer city residential suburbs interspersed with large scale open space institutional lands.</p> <p>Streetscape Character: Major suburban road corridor, primarily framed by two-storey residential estates interspersed with tree-lined grounds of educational facilities (e.g. Kylemore College, Ballyfermot College of Further Education, St. Michael's National School, St. Gabriel's National School, Ballyfermot Family Resource Centre, the former De La Salle school, Mount La Salle) and open space at Markievicz Park. The Church of Our Lady of the Assumption has a prominent location fronting tree planted roundabout at junction of Ballyfermot Road / Kylemore Road.</p> <p>Key Townscape Features: Traditional outer residential suburbs, with strong tree-lined boundaries on larger sites. Prominent church setting fronting tree-lined roundabout, which includes Statue of Virgin Mary on plinth. Tree-lined educational grounds and attractive public park.</p> <p>Amenity Designations: No architectural conservation areas or conservation areas. Nos.1 & 2 St. Andrew's / 279, 279A & 279B Sarsfield Road. Some areas of open space at Ballyfermot College of Further Education, Ballyfermot Road / Kylemore Road roundabout, Liffey Gaels GAA grounds, and notably at Markievicz Park. Major open space at Longmeadows Park and Pitch & Putt Course.</p> <p>Tree Preservation Order (TPO): None.</p> <p>Tree / Woodland Preservation Objectives: None.</p> <p>Protected Views: None.</p> <p>Protected Structures: De La School National School, Oak House and Floraville Entrance Sarsfield Road (refer to Chapter 16 (Architectural Heritage) for full details).</p> <p>Other: Landscaped roundabout at Ballyfermot Road / Kylemore Road with Stature of Virgin Mary.</p>	<p>High</p>

Proposed Scheme Character Areas	Baseline Description	Baseline Sensitivity
<p>Sarsfield Road to City Centre (For baseline features refer to Figure 17.1, Sheets 8 to 13 of 13 in Volume 3 of this EIAR)</p>	<p>Townscape Character: Inner city suburbs to historic core of city centre.</p> <p>Streetscape Character: Historic city access route leading to core urban streetscapes and historic City Centre. Sections of historic / heritage streetscape, including Mount Brown, and sections with mature street trees and park at Grattan Crescent, tree-lined Cammock River valley.</p> <p>Key Townscape Features: Historic streetscape alignments. Attractive historic residential estate of Mount Brown. Mature tree-lined street at Grattan Crescent / Grattan Crescent Park.</p> <p>Amenity Designations: Architectural Conservation Area at Thomas Street / Cornmarket. Conservation Area along James's Street, Thomas Street, Cornmarket and High Street. Residential Conservation Areas at Sarsfield Road / Inchicore Terrace / Grattan Crescent; at Mount Brown Kilmainham; and at St. Catherine's Church of Ireland Thomas Street. Grattan Crescent Park, Cammock River Corridor and St. Audoen's Park.</p> <p>Tree Preservation Order (TPO): None.</p> <p>Tree / Woodland Preservation Objectives: None.</p> <p>Protected Views: None.</p> <p>Protected Structures: Protected structures are located at The Great Southern & Western Railway House (Cleary's) Sarsfield House, Inchicore National School, St. Michael's Church Bulfin Road, as are many buildings / structures along James's Street, Thomas Street, Cornmarket and High Street. (Refer to Chapter 16 (Architectural Heritage) for full details).</p> <p>Other: Historic approach to City Centre with many key streets and buildings. Obelisk Fountain Monument on island at junction between James's Street / Bow Lane West. Section of City Wall at Cornmarket.</p>	<p>Very High</p>

17.4 Potential Impacts

This section presents potential impacts that may occur due to the Proposed Scheme, in the absence of mitigation. This informs the need for mitigation or monitoring to be proposed (refer to Section 17.5). Predicted residual impacts taking into account any proposed mitigation is presented in Section 17.6.

17.4.1 Characteristics of the Proposed Scheme

17.4.1.1 General

The key characteristics of the Proposed Scheme of particular relevance to the townscape and visual assessment are described in the following sections under separate headings for the Construction Phase and Operational Phase.

The description of the characteristics of the Proposed Scheme is based on the Proposed Scheme drawings in Volume 3 of this EIAR, including those within the Arboricultural Impact Assessment Report (Appendix A17.1 in Volume 4 of this EIAR).

A detailed description of the Proposed Scheme is provided in Chapter 4 (Proposed Scheme Description) and a detailed description of the Construction Phase of the Proposed Scheme is provided in Chapter 5 (Construction).

17.4.1.2 Development of the Proposed Scheme Design

Consideration of the potential landscape (townscape) and visual impacts have been important in defining the Proposed Scheme 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. The design changes are described in Section 3.4 of Chapter 3 (Consideration of Reasonable Alternatives).

The following are design changes that have been incorporated into the Proposed Scheme design, and which are applicable to this assessment, and have led to a reduction in predicted landscape and visual effects:

- The scheme design was refined on Coldcut Road to remove the land take requirement from Coldcut Park;

- Two existing roundabouts on the Fonthill Road in the Liffey Valley Shopping Centre were redesigned to signalised junctions to provide improved bus priority, walking and cycling facilities;
- The design of Landen Road junction was refined to remove land take from the residential properties. A short section of westbound bus lane was removed and signal controlled priority was used to provide bus priority;
- The area outside Ballyfermot church was refined to enhance the urban realm and to retain vehicular access;
- The design of the proposed footway and cycle track on Ballyfermot Road to the west of Cloiginn Park was refined to retain the existing tree along this section;
- Based on public consultation submissions received, and assessment of topographical survey subsequently undertaken along the route, alternative options for Grattan Crescent were examined. The first alternative option, with a single southbound general traffic lane along Grattan Crescent, was chosen as it provides full physical bus priority, retains existing mature trees and ties in well with the existing local traffic management in the area;
- To reduce the impact on Markievicz Park and the adjacent residential properties, the design was refined to provide signal controlled priority in lieu of a bus lane for inbound buses on Ballyfermot Road between Markievicz Park and St Laurence's Road. The inbound bus lane would then be reintroduced at St. Laurence's Road. To accommodate the revised arrangements, it is also intended to close Ballyfermot Road / O'Hogan Road junction of as part of the implementation of the signal controlled priority on Ballyfermot Road. The impact on the apartments at St. Laurence's Glen was also reduced by this design change;
- The Cornmarket junction was redesigned and enhanced to provide better walking and cycling provision. The priority of the junction was also changed from High Street / Thomas Street to High Street / Bridge Street Upper. High quality urban realm was added to the design at Cornmarket junction in order to improve the visual appearance of the area and create additional space for the pedestrian environment;
- The alignment design on Thomas Street as it approached Cornmarket was refined to avoid impacting the existing mature trees in the central median; and
- The proposed design on James's Street, Thomas Street and High Street was refined to provide continuous cycle tracks on both sides of the road whilst also retaining the existing footways.

17.4.1.3 Construction Phase

The key characteristics of the Proposed Scheme of particular relevance to the townscape and visual assessment during the Construction Phase include:

- Amendment and adaption of the existing road network throughout, including surfacing, kerbs, footpaths, drainage, lighting, service / utility features, road markings, etc.;
- Amendment and adaption of the existing junctions throughout, including surfacing, kerbs, footpaths, traffic controls, lighting, cycle facilities, road markings, etc.;
- Amendment and adaption of areas of existing verges, roadside and median tree planting and boundaries;
- Temporary and permanent land acquisition from properties along the Proposed Scheme; and
- Establishment / use of Construction Compounds.

Other key characteristics along sections of the Proposed Scheme of particular relevance to the townscape and visual assessment during the Construction Phase are outlined in the following sections.

17.4.1.3.1 Liffey Valley to Le Fanu Road

- Works along Fonthill Road including temporary land acquisition along the road corridor (Ch.A000 to Ch.A500);
- Works along the Coldcut Road boundary with Coldcut Club and Palmers Lawn, Palmers Drive and Palmers Court, including temporary land acquisition from roadside open space / planting and from the open space fronting Palmers Lawn, resulting in impact on existing boundaries, dense tree planting, as well open space for creation of a SuDS feature (Ch.B120 to Ch.B500);

- Works along the Coldcut Road boundary with Palmers Court and Palmers Walk, including temporary land acquisition from the roadside open space / planting and from the open space fronting Palmers Lawn, resulting in impact on existing boundaries, dense tree planting, and open space (Ch.B520 to Ch.B720);
- Works to create SuDS features in roadside open spaces on Coldcut Road (Ch.B630 to Ch.B670 and Ch.B730 to B750);
- Works in the vicinity of Coldcut Road / Ballyfermot Road, including impacts on tree-planted landscape areas, the removal of a small number of roadside trees and temporary land acquisition from verge at Cherry Orchard Industrial Estate, and works to surfacing and landscape island at Cherry Orchard Hospital (Ch.B750 to Ch.B1070);
- Works on Ballyfermot Road, including temporary land acquisition from Cherry Orchard Hospital with impact on the boundary, some tree planting and landscape area for the creation of a SuDS feature (Ch.B1210 to Ch.B1300);
- Works on Ballyfermot Road, including temporary land acquisition from Cherry Orchard Service Station with impact on the boundary, parking and loss of one tree (Ch.B1380 to Ch.B1460); and
- Works along Ballyfermot Road, including to kerbs, parking, removal of parallel access roads, introduction of new cycle tracks and on-street parking bays, and removal of street tree planting (4no. trees). (Ch.B1450 to Ch.B2390).

17.4.1.3.2 Le Fanu Road to Sarsfield Road

- Works along Ballyfermot Road and Kylemore Road, including works to kerbs, parking, and removal of street tree planting (Ch.B2390 to Ch.B3820) and (Ch.D000 to Ch.D450) respectively;
- Works to change the Ballyfermot Road / Kylemore Road roundabout to a signalised cross junction, including impact on tree planted landscape area (loss of 10no. trees), and existing statue and plinth, with the introduction of new perimeter landscape / urban realm areas (Ch.B2820 to Ch.B2920);
- Works along Ballyfermot Road including temporary land acquisition from St. Raphael's and St. Gabriel's and St. Michael's Primary Schools, Ballyfermot Resource Centre, former De La Salle school and Mount La Salle (derelict), with impact on the boundary wall and railings and removal of a substantial boundary tree-line / tree planting (including unquantified tree groups) and creation of SuDS feature within grounds of the former De La Salle school (Ch.B2910 to Ch.B3500);
- Works along Ballyfermot Road including temporary land acquisition from a section of Markievicz Park with impact on boundary railings and removal of a single tree (Ch.B3490 to Ch.B3560);
- Works along Ballyfermot Road including temporary land acquisition from sections of The Steeples residential development (Block E and Block F) with impact on the boundary wall and removal of boundary tree planting, and land acquisition from St. Laurence Court and 3 / 3A / 5 / 5A Ballyfermot Road (Ch.B3550 to Ch.B3720);
- Works to close off the junction of Ballyfermot Road and O'Hogan Road to vehicular traffic with introduction of landscape island (Ch.B3550 to Ch.B3560);
- Works at the junction between Sarsfield Road and St. Laurence's Road, including temporary land acquisition from the landscape quadrant west of the road junction (Ch.B3800 to Ch.B3850);
- Temporary land acquisition from the car park of Ruby Finnegans (1/1a First Avenue) and Meadow View, Sarsfield Road (Ch.B4180 to Ch.4230); and
- Works along Sarsfield Road including temporary land acquisition from Longmeadows Park and Pitch & Putt grounds north of the road corridor. These lands are elevated and retained above the road corridor and will require a new retaining wall and associated temporary land take from the open space. A SuDS area will be set within the open space at grade with the road level, and a new stone retaining wall will be constructed (Ch.B3840 to Ch.B4170).

17.4.1.3.3 Sarsfield Road to City Centre

- Works along Inchicore Road, Memorial Road, Grattan Crescent, Emmet Road, Old Kilmainham, Mount Brown, James's Street, Thomas Street, Cornmarket and High, including loss of a single street tree at Cornmarket (1no.); and
- Works at St James's Hospital including temporary land acquisition to accommodate new bus gate on Mount Brown including loss of 16no. trees (Ch B7050 to B7120).

17.4.1.3.4 Construction Compound Areas

Construction Compounds are to be located:

- LV1: on existing undeveloped lands off Fonthill Road (Ch.A150 to Ch.A200);
- LV2: on existing undeveloped area on lands adjacent to the Eir exchange building off Coldcut Road (Ch.B630 to Ch.B720); and
- LV3: on existing undeveloped lands off Con Colbert Road in grasslands at Liffey Gaels Park (Ch.B4650 to Ch.B4750).

17.4.1.4 Operational Phase

The key characteristics of the Proposed Scheme of particular relevance to the townscape and visual assessment during the Operational Phase include:

- Changes to traffic movements along the Proposed Scheme and on O'Hogan Road where traffic management measures are proposed; and
- Changes in streetscape elements, including the reallocation of carriageway space, provision of cycle and footpath facilities, signage, lighting, surfacing, road marking, etc. along the Proposed Scheme.

17.4.1.4.1 Liffey Valley to Le Fanu Road

- Changes to Fonthill Road including permanent land acquisition along the road corridor (Ch.A000 to Ch.550);
- Substantial changes to a section of the Coldcut Road and the verge adjacent to Coldcut Club and Palmers Estate including permanent land acquisition and reinstatement of boundary planting (Ch.B120 to Ch.B630);
- Changes to the junction of Coldcut Road / Ballyfermot Road, including impact on the tree planted landscape areas and permanent land acquisition from Cherry Orchard Industrial Estate (Ch.B750 to Ch.B1060); and
- Substantial changes along Ballyfermot Road with changes to landscape areas along the road, sections of roadside boundary and the road layout, including loss of street trees and permanent land acquisition from Cherry Orchard Hospital and Service Station (Ch.B750 to Ch.B2400).

The following key landscape measures are proposed in this section:

- Provision of new tree and ornamental planting along Fonthill Road (Ch.A000 to Ch.A500);
- Provision of reinstatement tree planting / boundary planting at Coldcut Club, Palmers Estate and reinstatement of various roadside open spaces, and provision of planted roadside SuDS features (Ch.B120 to Ch.B750);
- Provision of replacement street planting in landscape areas at the junction between Coldcut Road and Ballyfermot Road (Ch.B750 to Ch.B850);
- Provision of new tree planting and species rich grassland along the boundary with Cherry Orchard Industrial Estate (Ch.B850 to Ch.B1050);
- Reinstatement of entrance to Cherry Orchard Hospital with new grassed area, and reinstatement of boundary and boundary planting, as well as provision of planted SuDS area at Cherry Orchard Hospital (Ch.B970 to Ch.B1300);
- Reinstatement / new street planting along Ballyfermot Road to replace removed trees (Ch.B1450 to Ch.B2250); and
- A substantially improved urban realm along Ballyfermot Road from west of Ballyfermot Community Civic Centre to the Le Fanu Road junction including new tree planting, improved quality paving, improved pedestrian access and reduced areas of carriageway. (Ch. B1700 to Ch. B2040).

17.4.1.4.2 Le Fanu Road to Sarsfield Road

- Substantial changes to road corridor along Ballyfermot Road, including at Kylemore Road junction and along boundary with St. Gabriel's National School, the former De La Salle National School, the

former Mount La Salle Monastery, Markievicz Park and The Steeples with permanent land acquisition and substantial tree loss (Ch.B2400 to Ch.B3800); and

- Substantial changes to road corridor along Longmeadows Park with permanent land acquisition from the park and construction of SuDS and new retaining wall (Ch. B3840 to Ch. B4180).

The following key landscape measures are proposed in this section:

- A substantially improved urban realm scheme along Ballyfermot Road from the Le Fanu Road junction to east of the Kylemore Road junction with new tree planting, paving, street furniture and parking areas (Ch. B2400 to Ch. B3050);
- An enhanced urban realm scheme will be provided at the new Ballyfermot Road / Kylemore Road junction, with an appropriate setting for the Statue of Virgin Mary and associated plinth, and with new tree planting / urban realm scheme including play facilities, ornamental planting and seating areas (Ch. B2800 to Ch. B2950);
- Reinstatement / new street planting along Ballyfermot Road to replace removed trees (Ch. B2400 to Ch. B3600) including provision of setback boundary and adequate replacement tree planting and reinstatement works at St. Gabriel's National School, Ballyfermot Family Resource Centre, the former De La Salle National School, the former Mount La Salle Monastery; and planting to SuDS area in area of the former De La Salle National School (Ch. B2900 to Ch. B3500);
- Reinstatement of boundary and planting at the Steeples (Ch. B3500 to Ch. B3600);
- Reinstatement of impacted areas at St. Laurence Court and 3 / 3A / 5 / 5A Ballyfermot Road (Ch. B3640 to Ch. B3720);
- Reinstatement of the boundary, with a visually enhanced railing and boundary wall in natural stone cladding and planting at Longmeadows Park, and the introduction of a planted SuDS feature at street level (Ch. B3850 to Ch. B4180); and
- Reinstatement of impacted areas at Ruby Finnegan's (1/1a First Avenue) and Meadow View, Sarsfield Road (Ch. B4180 to Ch. B4230).

17.4.1.4.3 Sarsfield Road to City Centre;

- Changes to the road corridor from Sarsfield Road through to High Street with the continued effects from the loss during construction of a single. street tree at Cornmarket and 16no. street-adjacent trees at St James's Hospital (Ch.B4180 to Ch.B9020).

The following key landscape measures are proposed in this section:

- An improved urban realm will be provided along Con Colbert Road and Memorial Road with high quality concrete paving and use of a root-bridging structure to enhance health of existing trees (Ch.B5000 to Ch.B5200);
- A substantially improved urban realm will be provided along Grattan Crescent and Emmet Road to St. Vincent's Street West (Ch.B5400 to Ch.B5820);
- A substantially improved urban realm will be provided at the junction between James's Street and Bow Lane West (Ch.B7700 to Ch.B7850); and
- An improved urban realm will be provided at the Cornmarket / High Street junction (Ch.B8730 to Ch.B9020).

17.4.1.4.4 General Landscape / Townscape and Visual Measures

In addition to the above works, the following general landscape / townscape and visual measures are included within the Proposed Scheme:

- Where paving, existing trees, hedges, and/or plantings are removed from temporary acquisition areas, new planting and paving replacements will be provided as appropriate. Where practicable, new plants will be the same species to those removed. Replacement plant sizes will be those that are readily available and therefore, will be unlikely to match the maturity of plants removed (especially in the case of larger trees). However, where practicable, semi-mature trees will be used in the replanting works throughout the Proposed Scheme. Where the same or similar species are provided, maturity similar to that of the existing can be achieved in time;

- New boundaries will be established on the setback line to match the existing boundary. The construction and provision of the new boundaries will take account of the location of existing trees, other plantings, gradients, drainage, property features and access arrangements so as to minimise additional indirect effects. Where practicable, existing railings, gates, cut stone walls and/or piers (or where appropriate, elements of same) to be removed will be reinstated on the new setback boundary line subject to discussion between the landowner and the NTA;
- The Proposed Scheme will provide for the planting of new semi-mature street trees to replace removed trees, where practicable, and for improvement of the streetscape environment. Species selected shall be appropriate to the urban street environment and to the characteristics of the specific location;
- Proposals for the treatment of the urban realm within the streetscape impacted by the Proposed Scheme will have regard to the existing character of the street or location, to emerging policies, objectives and proposals for the urban realm and to opportunities for mitigation of impact on the urban 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 clutter, ease of legibility, and management and maintenance requirements;
- Landscape proposals will have regard to the recommendations of Chapter 12 (Biodiversity) in relation to opportunities for provision of biodiversity and of Chapter 13 (Water) in relation to opportunities for incorporation of SuDS;
- All aspects of the Proposed Scheme within public areas will revert to on-going management and maintenance in accordance with normal operational practices. This will include hard and soft landscape works and townscape measures, new and reinstated tree and other planting, and new and reinstated surfacing and paving, etc.; and
- Maintenance and monitoring of reinstatement and other works in private areas (e.g. 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 Construction Phase.

17.4.2 Do Nothing Scenario

With respect to Landscape (Townscape) and Visual, the Do Nothing scenario means that the Proposed Scheme would not proceed and associated changes to the Landscape (Townscape) and Visual environment would not arise. Therefore, landscapes / townscapes and properties along the Proposed Scheme would not experience the impacts that are associated with the Proposed Scheme and their existing setting would experience little or no change in the short to medium-term. Nevertheless, given the urban context of the Proposed Scheme it is considered likely that the road corridor of the Proposed Scheme will continue to experience pressure for reallocation of carriageway space and associated traffic movements in direct response to the increasing demand for alternative modes of transport (i.e. away from private car).

As such, there would be a Neutral effect on the Landscape (Townscape) and Visual under the Do Nothing scenario.

17.4.3 Construction Phase

The Construction Phase of the Proposed Scheme will give rise to temporary or short-term (one to three years) townscape streetscape and visual impact through the following:

- Site mobilisation and establishment, fencing and hoarding of Construction Compounds and works areas - including within private areas / gardens;
- Site demolition, including removal of boundaries, kerbs, verges, surfaces, landscape areas, trees and plantings – including boundary fences, walls and plantings within private areas / gardens;
- Site activity and visual disturbance from general construction works and operation of construction machinery both within the site and at the Construction Compounds;
- Construction works involving diversion of existing underground / overground services and utilities, provision of new services and utilities, drainage features and connections, etc.;

- Site activity and construction works involved in construction of new carriageways, kerbings, footpaths and cycle tracks, bus stops and signage, reinstatement of boundaries / provision of new boundaries and landscape reinstatement works / provision of new landscape, etc.; and
- Decommissioning of works areas and the Construction Compounds.

A detailed description of the construction of the Proposed Scheme is provided in Chapter 5 (Construction).

17.4.3.1 Impact on Townscape and Streetscape Character

As set out in Section 17.3.1 the Proposed Scheme is sub-divided into sections:

- Liffey Valley to Le Fanu Road;
- Le Fanu Road to Sarsfield Road; and
- Sarsfield Road to City Centre.

17.4.3.1.1 Liffey Valley to Le Fanu Road

The baseline townscape is of medium / high sensitivity and construction of the Proposed Scheme will involve demolition, excavation and construction works to sections of kerbs, road carriageways, the existing M50 overbridge, sections of footpaths, junctions, surfacing and parking, drainage features, and utilities. There will be temporary land acquisition from various properties along this section. The Proposed Scheme will include direct impact on the existing roadside planted boundary along Coldcut Road, at Palmers residential estate and works within the open space at Palmers Court, with removal of dense screen planting and loss of landscape area.

Construction works will also involve works along Ballyfermot Road, with impacts on existing tree planted landscape islands at Coldcut Road junction, areas at Cherry Orchard Hospital, and at Cherry Orchard Industrial Estate. There will be notable changes to the Ballyfermot Road corridor, with impact on road kerbs, surfacing, parking and loss of street trees. The construction works will not alter the overall townscape character along this section of the Proposed Scheme, however, the works will detract from the streetscape character. The magnitude of change in the baseline environment is high.

The townscape / streetscape impact of the Construction Phase is predicted to be Negative, Significant and Temporary / Short-Term.

17.4.3.1.2 Le Fanu Road to Sarsfield Road

The baseline townscape is of high sensitivity and the construction of the Proposed Scheme will involve substantial works along sections of the existing road, including the change of Ballyfermot Road / Kylemore Road roundabout to a signalised junction, with the removal of tree planting and the relocation of the statue. Works will involve removal of the existing boundary wall and railing and tree planting at St. Gabriel's National School, the former De La Salle National School / the former Mount La Salle Monastery, as well as at The Steeples and Markievicz Park. The works at St. Gabriel's National School, the former De La Salle National School / the former Mount La Salle Monastery, as well as along north side of Ballyfermot Road from The Steeples to St Lawrence's Court and at Markievicz Park will also involve temporary acquisition of portions of private property.

The construction works will have a notable effect on the existing streetscape character along this section and will temporarily detract from the visual amenity. The magnitude of change in the baseline environment is very high.

The townscape / streetscape impact of the Construction Phase is predicted to be Negative, Very Significant and Temporary / Short-Term.

17.4.3.1.3 Sarsfield Road to City Centre

The baseline townscape is of very high sensitivity and construction of the Proposed Scheme involves changes along the road corridor. The Construction Phase involves demolition, excavation and construction works to kerbs, road carriageways, footpaths, junctions, planted areas, surfacing and parking, utilities, and drainage features, etc. The construction works will not alter the existing townscape or streetscape character along this section of the

Proposed Scheme but they will temporarily detract from the visual amenity. The magnitude of change in the baseline environment is medium / high.

The townscape / streetscape impact of the Construction Phase is predicted to be Negative, Significant and Temporary / Short-Term.

17.4.3.2 Impact on Streetscape Elements and Visual Impacts

17.4.3.2.1 Architectural Conservation Areas

An Architectural Conservation Area (ACA) is located at Thomas Street / Cornmarket, where modest works are proposed along the existing street and at the Cornmarket junction with High Street. Works will not directly impact characteristic features of the ACA. The magnitude of change in the baseline environment is low / medium.

The townscape / streetscape and visual impact of the Construction Phase on the architectural conservation area is predicted to be Negative, Moderate and Temporary / Short-Term.

17.4.3.2.2 Conservation Areas

There is a Conservation Area along James's Street, Thomas Street, Cornmarket and High Street. The construction of the Proposed Scheme will result in localised changes and alterations to the road corridor, however, the works will not detract from the wider conservation areas. The magnitude of change in the baseline environment is medium.

The townscape / streetscape and visual impact of the Construction Phase on conservation areas is predicted to be Negative, Moderate / Significant and Temporary / Short-Term.

17.4.3.2.3 Residential Conservation Areas

There are Residential Conservation Areas at Nos.1 & 2 St. Andrew's / 279, 279A & 279B Sarsfield Road; at Sarsfield Road / Inchicore Terrace / Grattan Crescent; at Mount Brown Kilmainham; and at St. Catherine's Church of Ireland Thomas Street. While not directly impacted, the properties adjoin the works, most notably where substantial works occur at Longmeadows Park, and there will be indirect effects. The magnitude of change in the baseline environment is medium / high.

The townscape / streetscape and visual impact of the Construction Phase on residential conservation areas is predicted to be Negative, Moderate / Significant and Temporary / Short-Term.

17.4.3.2.4 Protected Structures

Protected structures are located at the former De La Salle School, Oak House and Floraville Entrance Sarsfield Road, The Great Southern & Western Railway House (Cleary's) Sarsfield House, Inchicore National School, St. Michael's Church Bulfin Road, as are many buildings along James's Street, Thomas Street, Cornmarket and High Street. Works will directly impact on the boundary of the former De La Salle School, but the building itself will not be directly impacted. The works along the road corridor do not directly impact on the other Protected Structures but in many cases will be immediately adjacent to protected structures and will have an indirect impact.

The magnitude of change is medium / high (refer also to Chapter 16 (Architectural Heritage)).

The townscape / streetscape and visual impact of the Construction Phase on protected structures is predicted to be Negative, Moderate / Significant and Temporary / Short-Term.

17.4.3.2.5 Amenity Designations

A number of amenities are located along the Proposed Scheme. These include areas such as areas of open space at Coldcut Club, Palmers residential estate, in narrow areas along Ballyfermot Road, at Blackditch estate, at Ballyfermot Community Civic Centre, Markievicz Park, Longmeadows Park and Pitch & Putt Course, Liffey Gaels GAA grounds, Grattan Crescent Park, Cammock River Corridor and St. Audoen's Park. The works will

involve direct impact on the open spaces at Palmers estate, along Ballyfermot Road, at Markievicz Park Longmeadows Park and Pitch & Putt and Liffey Gaels Park.

The townscape / streetscape and visual impact of the Construction Phase on these amenities is predicted to be Negative, Very Significant and Temporary / Short-Term.

17.4.3.2.6 Tree Preservation Orders / Tree Preservation Objectives

There are no tree preservation orders (TPO) or specific objectives along the Proposed Scheme.

17.4.3.2.7 Preserved Views / Scenic Views, etc.

There are no preserved views / scenic views along the Proposed Scheme.

17.4.3.2.8 Properties

The Construction Phase of the Proposed Scheme will require the temporary acquisition from three residential properties at The Steeples (Blocks E and F) with removal of boundary wall and tree planting, and works within the car park area to apartments at St. Lawrence Court and landscaped area at St Lawrences Glen. The magnitude of change at these properties is high.

The townscape / streetscape and visual impact of the Construction Phase on these properties is predicted to be Negative, Significant / Very Significant and Temporary / Short-Term.

The Construction Phase of the Proposed Scheme will require the acquisition from the following non-residential properties:

- Plot at Fonthill Road, Irishtown;
- Liffey Valley Retail Park;
- Plot at Liffey Valley Tesco;
- B&Q Warehouse, Liffey Valley Retail Park;
- Verge adjacent to Coldcut Club;
- Ground at Coldcut Road;
- Ground at Eir Exchange;
- Ground at Whitethorn Crescent;
- Units 83-86, 76, L40, 42, 43, 26, 27, Pat the baker Cherry Orchard Industrial Estate;
- Cherry Orchard Hospital;
- Ground adjacent to Lid;
- Applegreen, Cherry Orchard Service Station, Ballyfermot Road;
- First Stop Tyres, Cherry Orchard Service Station, Ballyfermot Road;
- Car park at 336-338, Ballyfermot Road;
- St. Raphael's, St. Gabriel's, St. Michaels Primary Schools & Ballyfermot Resource Centre, Ballyfermot Road;
- Former De La Salle National School, Ballyfermot Road;
- Former Mount Le Salle, Ballyfermot Road;
- Markievicz Park;
- Bump and grind coffee, Ballyfermot Road;
- Nos. 3, 3A, 5 and 5A Ballyfermot Road (First Stop Tyre);
- Longmeadows Pitch and Putt, Sarsfield Road, Ballyfermot;
- Ground at Longmeadows Sarsfield Road, Ballyfermot;
- Car Park to front of Ruby Finnegan's 1/1a, First Avenue;
- Meadow View, Nos. 1 to 4 Sarsfield Road;

- Ground at Liffey Gales GAA; and
- Plot at National Children's Hospital, Mount Brown.

Some of the areas listed are hard standing, but works will also involve removal of boundaries, trees, plantings and landscape areas – especially at St. Raphael's, St. Gabriel's and St. Michaels National Schools; Ballyfermot Resource Centre; and the former De La Salle National School. The magnitude of change is very high.

The townscape / streetscape and visual impact of the Construction Phase on these properties is predicted to be Negative, Very Significant and Temporary / Short-Term.

In addition to those properties directly impacted through acquisition (temporary and / or permanent) of private areas, construction of the Proposed Scheme will also result in visual impacts for other residential and non-residential properties located along, fronting and viewing the Proposed Scheme. Impacts will arise from the provision of Construction Compounds, general disturbance, demolition, excavation and construction works within the public road corridor of the Proposed Scheme. The magnitude of change is high.

The townscape and visual impact of the Construction Phase on these properties is predicted to be Negative, Significant and Temporary / Short-Term.

17.4.3.2.9 Trees

The Construction Phase of the Proposed Scheme will require the removal of existing trees and other plantings at specific locations along the road corridor. Most notably these include the tree belt on the boundary of Palmers residential estate; on the boundary of St. Raphael's, St. Gabriel's and St. Michaels National Schools; Ballyfermot Resource Centre; the former De La Salle National School; at the roundabout at the junction of Ballyfermot Road / Kylemore Road; and at St James's Hospital. The magnitude of change is very high.

The townscape and visual impact of the Construction Phase on trees and plantings is predicted to be Negative, Very Significant and Short-Term.

The summary of the landscape and visual impact assessment for the Construction Phase of the Proposed Scheme is set out in Table 17.7.

Table 17.7: Summary of Predicted Construction Phase Impacts

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Townscape and Streetscape Character				
Liffey Valley to Le Fanu Road		Medium / High	High	Negative Significant Temporary / Short-Term
For proposed changes see Section 17.4.3.1.1				
Le Fanu Road to Sarsfield Road		High	Very High	Negative Very Significant Temporary / Short-Term
For proposed changes see Section 17.4.3.1.2				
Sarsfield Road to City Centre		Very High	Medium / High	Negative Significant Temporary / Short-Term
For proposed changes see Section 17.4.3.1.3				
Streetscape Characteristics and Visual Impacts				
Architectural Conservation Areas	For proposed changes see Section 17.4.3.2.1	Very High	Low / Medium	Negative Moderate Temporary / Short-term
Conservation Areas	For proposed changes see Section 17.4.3.2.2	Very High	Medium	Negative Moderate / Significant Temporary / Short-term

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Residential Conservation Areas	For proposed changes see Section 17.4.3.2.3	High	Medium / High	Negative Moderate / Significant Temporary / Short-Term
Protected Structures	For proposed changes see Section 17.4.3.2.4	Very High	Medium / High	Negative Moderate / Significant Temporary / Short-Term
Amenity Designations	For proposed changes see Section 17.4.3.2.5	High	High / Very High	Negative Very Significant Temporary / Short-Term
TPOs / Tree Protection Objectives	There are no tree preservation orders / preservation objectives along the Proposed Scheme	N/A	N/A	N/A
Preserved Views / Scenic Views etc.	There are no preserved views / scenic views along the Proposed Scheme.	N/A	N/A	N/A
Properties	Part of residential property in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Significant / Very Significant Temporary / Short-Term
	Non-residential properties included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	Very High	Negative Very Significant Temporary / Short-Term
	Properties along, fronting and viewing the Proposed Scheme not included in temporary acquisition. For proposed changes see Section 17.4.3.2.8	High	High	Negative Significant Temporary / Short-Term
Trees and Vegetation	For proposed changes see Section 17.4.3.2.9	Medium / High	Very High	Negative Very Significant Short-term

17.4.4 Operational Phase

The Operational Phase of the Proposed Scheme will give rise to townscape / streetscape and visual effects through the following:

- Alterations in the physical and visual character of the corridor of the existing road / street;
- Changes in traffic, pedestrian and cycle movements;
- Modification of areas of private property / gardens / boundaries; and
- Adjustments to other areas / boundaries.

These effects may be temporary, short-term, medium-term, long-term or permanent.

While alterations in the road corridor and changes in traffic, pedestrian and cycle movements are features of the Proposed Scheme, it is not anticipated that these aspects in themselves will give rise to significant landscape, townscape or visual effects. Changes in road corridors, including traffic signalisation, signage, and in carriageway / parking allocation and traffic movements are a common and regular aspect of active road and traffic management for urban roads and streets. Therefore, these changes may be considered part and parcel of on-going or regular changes that may be expected to occur, and do occur, from time to time in any urban streetscape environment and such changes are considered as a low or negligible magnitude of change.

A detailed description of the Proposed Scheme is provided in Chapter 4 (Proposed Scheme Description).

17.4.4.1 Impact on Townscape and Streetscape Character

As set out in Section 17.3.1 the Proposed Scheme is sub-divided into three townscape / streetscape character areas:

- Liffey Valley to Le Fanu Road;
- Le Fanu Road to Sarsfield Road; and
- Sarsfield Road to City Centre.

17.4.4.1.1 Liffey Valley to Le Fanu Road

The baseline townscape is of medium / high sensitivity and the Operational Phase of the Proposed Scheme will involve modest changes to the existing road infrastructure – but with a change along the boundary with Palmer’s estate, where existing planting is removed, replacement tree planting provided, and a detention basin is provided in the existing open space. The Operational Phase will not alter the overall existing townscape character along this section of the Proposed Scheme but there will be notable localised improvements to the streetscape. There will be improvements to streetscape character in some areas along this section, particularly at Fonthill road with increased tree planting and provision of a biodiverse swale, and along Ballyfermot Road with the provision of a reduced carriageway area, with new paved pedestrian areas, improved paving and new street trees. There will be an increase in the positive effects over time through growth of replacement planting. The magnitude of change in the baseline environment is low / medium.

The effect of the Operational Phase is predicted to be Positive, Slight and Short-Term, becoming Positive, Slight / Moderate, Long-Term.

17.4.4.1.2 Le Fanu Road to Sarsfield Road

The baseline townscape is of high sensitivity and the Operational Phase of the Proposed Scheme will involve substantial changes along the existing major road infrastructure – most notably from Ballyfermot Road / Kylemore Road junction to Sarsfield Road, with changes from the replacement of the existing roundabout with a signalised junction and the widening of the road with setback of the boundary wall and continued effects from loss of tree planting during construction along St. Raphael’s, St. Gabriel’s, St. Michaels National Schools; Ballyfermot Family Resource Centre; the former De La Salle National School and Mount La Salle; and at The Steeples. Substantial changes occur at Longmeadows Park, where the existing retained boundary is set back and an improved stone retaining wall is provided, including a biodiverse SuDS area. There will be provision of an enhanced public realm to the retail area of Ballyfermot ‘village’ centre including new paving, street trees, street furniture. There will be a change with the provision of a signalised junction at Kylemore Road / Ballyfermot Road, which creates accessible public realm at each arm of the junction including new planting, re-organised parking, play spaces new surfaces, and a local net-gain in tree numbers. The growth of replacement tree planting will negate the loss of existing trees over the long term.

The Operational Phase of the Proposed Scheme will not alter the overall townscape character but will alter the existing streetscape character along this section of the Proposed Scheme. The magnitude of change in the baseline environment is medium.

The effect of the Operational Phase is predicted to be Negative, Moderate / Significant and Short-Term, becoming Positive, Moderate, Long-Term.

17.4.4.1.3 Sarsfield Road to City Centre

The baseline townscape is of very high sensitivity and the Operational Phase of the Proposed Scheme will involve modest changes along the road corridor, including at Emmet Street, James’s Street / Bow Lane West junction and at Cornmarket. A notable change occurs at St James’s Hospital / National Children’s Hospital with continued effects from the removal of trees, however, this will provide room for growth of trees to the rear which are currently congested and there also be provision of a smaller number of replacement trees. The Operational Phase will not alter the overall existing townscape character along this section of the Proposed Scheme but there will be notable localised improvements to the streetscape, such as improved paving on Memorial Road, Grattan Crescent and Emmett Road. There will also be improvements at Bow Lane West and Cornmarket with provision of a redesigned urban realm at these key city centre locations with an increase in the positive effects over time, through growth of replacement planting. The magnitude of change in the baseline environment is low.

The effect of the Operational Phase is predicted to be Positive, Slight and Short-Term, becoming Positive, Slight / Moderate, Long-Term.

17.4.4.2 Impact on Streetscape Elements and Visual Impacts

17.4.4.2.1 Architectural Conservation Areas

An ACA is located at Thomas Street / Cornmarket, where changes are proposed along the existing street and at the Cornmarket junction with High Street. The changes will not directly impact characteristic features of the ACA. The magnitude of change in the baseline environment is negligible.

The townscape / streetscape and visual impact of the Operational Phase on the ACA is predicted to be Neutral, Imperceptible, Short-Term, remaining the same into the Long-Term.

17.4.4.2.2 Conservation Areas

There is a Conservation Area along James's Street, Thomas Street, Cornmarket and High Street. The Operational Phase of the Proposed Scheme will result in localised changes and alterations to the road corridor, which will not detract from the wider conservation areas. The magnitude of change in the baseline environment is negligible.

The townscape / streetscape and visual effect of the Operational Phase on the conservation areas is predicted to be Neutral, Imperceptible, Short-Term, remaining the same into the Long-Term.

17.4.4.2.3 Residential Conservation Areas

There are Residential Conservation Areas at Nos.1 & 2 St. Andrew's / 279, 279A & 279B Sarsfield Road; at Sarsfield Road / Inchicore Terrace / Grattan Crescent; at Mount Brown Kilmainham; and at St. Catherine's Church of Ireland Thomas Street. While not directly impacted, the properties adjoin Proposed Scheme and will experience indirect effects. Effects will be most notable at Sarsfield Road, where there are positive changes at Longmeadows, such as the introduction of street trees, a species rich SUDs basin and new retaining wall clad in stone. The magnitude of change in the baseline environment is medium.

The townscape / streetscape and visual effect of the Operational Phase on residential conservation areas is predicted to be Positive, Moderate, Short-Term, remaining the same into the Long-Term.

17.4.4.2.4 Protected Structures

Protected structures are located at Oak House and Floraville Entrance Sarsfield Road, The Great Southern & Western Railway House (Cleary's) Sarsfield House, Inchicore National School, St. Michael's Church Bulfin Road, as are many buildings along James's Street, Thomas Street, Cornmarket and High Street. Modest changes are required along the road corridor, however, they do not directly impact the protected structures. The effect will become positive as the proposed landscape matures. The magnitude of change is low. Refer also to Chapter 16 (Architectural Heritage) for further information on protected structures.

The townscape / streetscape and visual effect of the Operational Phase on Protected Structures is predicted to be Neutral, Slight and Short-Term, becoming Positive, Slight, Long-Term.

17.4.4.2.5 Amenity Designations

A number of amenities are located along the Proposed Scheme. These include areas such as green space adjacent to Coldcut Club, Palmers residential estate, in narrow areas along Ballyfermot Road, at Blackditch estate, at Ballyfermot Community Civic Centre, Markievicz Park, Longmeadows Park and Pitch & Putt Course, Liffey Gaels GAA grounds, Grattan Crescent Park, Cammock River Corridor and St. Audoen's Park. The Operational Phase will involve direct changes to the open spaces at Palmers estate, with the effects of the loss of tree planting and changes to the open space from the Construction Phase continuing to be experienced, and most notably at Longmeadows Park and Pitch & Putt, where the existing retained boundary is setback and a new SuDs feature is provided at grade with the road corridor. Where practicable, replacement tree planting will be provided which will neutralise the effects over the long-term. The magnitude of change is low.

The townscape / streetscape and visual effect of the Operational Phase on these smaller open spaces is predicted to be Negative, Slight and Short-Term, becoming Neutral, Slight, Long-Term.

17.4.4.2.6 TPOs / Tree Preservation Objectives

There are no TPOs / preservation objectives along the Proposed Scheme.

17.4.4.2.7 Preserved Views / Scenic Views, etc.

There are no preserved views / scenic views along the Proposed Scheme.

17.4.4.2.8 Properties

The Operational Phase of the Proposed Scheme will require permanent acquisition from residential properties at The Steeples (Blocks E and F), with removal of boundary wall and tree planting, and works within the car park area to apartments at St. Lawrence Court, and landscaped area at St Lawrences Glen with setback of boundary wall and loss of planting. Tree planting will be provided at The Steeples which will reduce the effects over the long-term. There will also be loss of car parking area and setback of boundaries at St Lawrence Court.

The townscape / streetscape and visual effect of the Operational Phase on these properties is predicted to be Negative, Moderate / Significant and Short-Term becoming Negative, Moderate, Long-Term.

The Operational Phase of the Proposed Scheme will require permanent acquisition from the following non-residential properties:

- Plot at Fonthill Road, Irishtown (Ch.A340 to Ch.A440);
- Plot at Liffey Valley Retail Park;
- B&Q Warehouse, Liffey Valley Retail Park;
- Ground at Coldcut Road (Ch.B300 to Ch.B700);
- Units 76, Cherry Orchard Industrial Estate (Ch.B840 to Ch.B1050);
- Ground at Ballyfermot Road (Ch.B1210 to Ch.B1300);
- Applegreen, Cherry Orchard Service Station, Ballyfermot Road (approx. Ch.B1400);
- First Stop Tyres, Cherry Orchard Service Station, Ballyfermot Road (approx. Ch.B1440);
- Car park at 336-338, Ballyfermot Road (approx. Ch.B2350);
- St. Raphael's, St. Gabriel's, St. Michaels Primary Schools & Ballyfermot Resource Centre, Ballyfermot Road (Ch.B2920 to Ch.B3130);
- The former De La Salle National School and Mount Le Salle Monastery, Ballyfermot Road (Ch.B3140 to Ch.B3500);
- Ground at north side of Sarsfield Road, Ballyfermot (Ch.B3840 to Ch.B4175);
- Car Park to front of Ruby Finnegan's 1/1a, First Avenue (approx. Ch.B4200);
- Meadow View, Nos. 1 to 4 (including apartments above), Sarsfield Road (approx. Ch.B4225);
- Plot at National Children's Hospital, Mount Brown (approx. Ch.B7100).

While some areas lost to land acquisition are hard standing, changes will also involve setback of boundaries and loss of trees, plantings and landscape areas – especially at St. Gabriel's National School / Ballyfermot Family Resource Centre / Former De La Salle / Former Mount La Salle. Where practicable, replacement tree planting will be provided which will reduce the effects over the long-term. The magnitude of change is high.

The townscape / streetscape and visual effect of the Operational Phase on these properties is predicted to be Negative, Moderate / Significant and Short-Term, becoming Negative, Moderate, Long-Term.

In addition to those properties directly effected through permanent acquisition of areas, the Operational Phase of the Proposed Scheme will also result in visual impacts for other residential and non-residential properties located along, fronting and viewing the Proposed Scheme. The magnitude of change is low.

The townscape and visual effect of the Operational Phase on these properties is predicted to be Neutral, Slight and Short-Term remaining the same into the Long-Term.

17.4.4.2.9 Trees

The Operational Phase of the Proposed Scheme will not require additional removal of existing trees and other plantings, however, trees will have been removed during construction and their loss in the streetscape / at properties will remain at specific locations along the road corridor. Most notably these include the tree belt on the boundary of Palmers residential estate, on the boundary of St. Gabriel's National School / Ballyfermot Family Resource Centre / De La Salle / Mount La Salle, at the junction of Ballyfermot Road / Kylemore Road and at St James's Hospital. Where practicable, replacement tree planting will be provided, as well as additional trees for enhancement of the streetscape, and this will reduce the effects over the long-term. The magnitude of change is medium.

The townscape and visual effect of the Operational Phase on trees and plantings is predicted to be Negative, Moderate / Significant and Short-Term, becoming Neutral, Moderate, Long-Term.

17.4.4.2.10 Potential Benefits

Where landscape measures are incorporated in the design of the Proposed Scheme there is potential for a beneficial effect to the fabric and character of the receiving landscape / townscape (see Chapter 4 (Proposed Scheme Description) for more detail on these landscape measures). Measures include improvements to the streetscape in several locations along the Proposed Scheme, including new or improved footpath and cycle routes, improved or more visually appealing hard surfacing, street furniture and planting. In some cases, this will create a net benefit compared to the baseline landscape, such as along the Liffey Valley to Fanu Road and Sarsfield Road to City Centre sections of the Proposed Scheme, which would experience improvements in the streetscape through new higher quality paving, introduction of play spaces, new tree / ornamental planting, and improved pedestrian and cycle accessibility. Over the long-term, the negative effects associated with the removal of mature trees along many sections of the Proposed Scheme will reduce with the growth of replacement planting.

The summary of the landscape and visual effect assessment at the early stage of the Operational Phase (at 1-year post completion of the Construction Phase) of the Proposed Scheme is set out in Table 17.8. Operational effects following the establishment of proposed planting at 15-year post completion of the Construction Phase are shown in Table 17.10.

Table 17.8: Summary of Predicted Operational Phase Impacts (at 1 year post-Construction Phase)

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Townscape and Streetscape Character				
Liffey Valley to Le Fanu Road For proposed changes see Section 17.4.3.1.1		Medium / High	Low / Medium	Positive Slight Short-term
Le Fanu Road to Sarsfield Road For proposed changes see Section 17.4.3.1.2		High	Medium	Negative Moderate / Significant Short-term
Sarsfield Road to City Centre For proposed changes see Section 17.4.3.1.3		Very High	Low	Positive Slight Short-term
Streetscape Characteristics and Visual Impacts				
ACA	For proposed changes see Section 17.4.3.2.1	Very High	Negligible	Neutral Imperceptible Short-Term
Conservation Areas	For proposed changes see Section 17.4.3.2.2	Very High	Negligible	Neutral Imperceptible Short-Term

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Residential Conservation Areas	For proposed changes see Section 17.4.3.2.3	High	Medium	Positive Moderate Short-Term
Protected Structures	For proposed changes see Section 17.4.3.2.4	Very High	Low	Neutral Slight Short-term
Amenity Designations	For proposed changes see Section 17.4.3.2.5	High	Low	Negative Slight Short-term
TPOs / Tree Protection Objectives	There are no tree preservation orders / preservation objectives along the Proposed Scheme.	N/A	N/A	N/A
Preserved Views / Scenic Views etc.	There are no preserved views / scenic views along the Proposed Scheme.	N/A	N/A	N/A
Properties	Part of residential property in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Moderate / Significant Short-term
	Non-residential properties included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Moderate / Significant Short-term
	Properties along, fronting and viewing the Proposed Scheme not included in permanent acquisition For proposed changes see Section 17.4.3.2.8	Medium / High	Low	Neutral Slight Short-term
Trees and Vegetation	For proposed changes see Section 17.4.3.2.9	Medium / High	Medium	Negative Moderate / Significant Short-term

17.5 Mitigation and Monitoring Measures

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.

17.5.1 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 Scheme. These measures are to be applied across the Proposed 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 17.9.

- 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 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. For details of trees to be retained refer to Tree Protection Plans in the Arboricultural Impact Assessment (Appendix A17.1 in Volume 4 of this EIAR);
- Wherever practicable, trees and vegetation will be retained within the Proposed Scheme. 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. For details of trees and vegetation to be removed refer to Tree

Protection Plans in the Arboricultural Impact Assessment (Appendix A17.1 in Volume 4 of this EIAR) and Landscape General Arrangements (BCIDB-JAC-ENV_LA-0007_XX_00-DR-LL-9001 in Volume 3 of this EIAR);

- The Arboricultural Assessment prepared for the Proposed Scheme will be fully updated by the appointed contractor at the end of the Construction Phase and made available, 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 listed in Section 17.4.3.2.8 and Section 17.4.4.2.8), an inventory of boundary details and accesses, planting, paving, and other features that may be disturbed or removed will be prepared by the appointed contractor prior to commencement of construction works;
- Where properties are subject to permanent and / or temporary acquisition (as listed in Section 17.4.3.2.8 and Section 17.4.4.3.8), appropriate measures will be put in place by the appointed contractor to provide for protection of features, trees and vegetation to be retained, for continued access during construction and for adequate security and screening of construction works. All temporary acquisition areas will be fully decommissioned and reinstated at the end of the Construction Phase or at the earliest time after the reinstatement works are completed to the satisfaction of the NTA. Where boundary features, gates, railings, archways of heritage importance (and which contribute to landscape value) are to be affected by the works, mitigation measures should follow those outlined in Chapter 16 (Architectural Heritage); and
- Appropriate access to amenities and public open spaces shall be maintained by the appointed contractor.

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

Table 17.9: Summary of Predicted Construction Phase Impacts Following the Implementation of Mitigation and Monitoring Measures

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Townscape and Streetscape Character				
Liffey Valley to Le Fanu Road For proposed changes see Section 17.4.3.1.1		Medium / High	High	Negative Significant Temporary / Short-Term
Le Fanu Road to Sarsfield Road For proposed changes see Section 17.4.3.1.2		High	Very High	Negative Very Significant Temporary / Short-Term
Sarsfield Road to City Centre For proposed changes see Section 17.4.3.1.3		Very High	Medium / High	Negative Significant Temporary / Short-Term
Streetscape Characteristics and Visual Impacts				
ACA	For proposed changes see Section 17.4.3.2.1	Very High	Low / Medium	Negative Moderate Temporary / Short-term
Conservation Areas	For proposed changes see Section 17.4.3.2.2	Very High	Medium	Negative Moderate / Significant Temporary / Short-term
Residential Conservation Areas	For proposed changes see Section 17.4.3.2.3	High	Medium / High	Negative Moderate / Significant Temporary / Short-Term
Protected Structures	For proposed changes see Section 17.4.3.2.4	Very High	Medium / High	Negative Moderate / Significant Temporary / Short-Term

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Amenity Designations	For proposed changes see Section 17.4.3.2.5	High	High / Very High	Negative Very Significant Temporary / Short-Term
TPOs / Tree Protection Objectives	There are no tree preservation orders / preservation objectives along the Proposed Scheme	N/A	N/A	N/A
Preserved Views / Scenic Views etc.	There are no preserved views / scenic views along the Proposed Scheme.	N/A	N/A	N/A
Properties	Part of residential property in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Significant / Very Significant Temporary / Short-Term
	Non-residential properties included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	Very High	Negative Very Significant Temporary / Short-Term
	Properties along, fronting and viewing the Proposed Scheme not included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Significant Temporary / Short-Term
Trees and Vegetation	For proposed changes see Section 17.4.3.2.9	Medium / High	Very High	Negative Very Significant Short-term

17.5.2 Operational Phase

The design process of the Proposed Scheme has considered the potential for negative landscape / townscape and visual effects. Opportunities to avoid, reduce or remediate these have been taken wherever practicable, and landscape measures are integrated within the design as far as possible. It should be noted, that wherever practicable, the Proposed Scheme proposes improvements of key locations of the townscape / streetscape, as described in Section 17.4.1.4 and Section 17.4.4. Therefore, while no mitigation or monitoring measures are proposed for the Operational Phase, the Proposed Scheme will become established and increasingly integrated within its landscape (townscape) setting, and the potential negative operational effects will be reduced. A comparative summary of predicted Operational Phase effects, at both 1 year Post-Construction Phase and following establishment of landscape measures at 15 years Post-Construction Phase, is presented in Table 17.10.

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 possible 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.

Table 17.10: Summary of Predicted Operational Phase Impacts (at 1 and 15 years post-Construction Phase)

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts	Significance and Quality of Effects (with establishment of landscaping at 15 years post-construction)
Townscape and Streetscape Character					
Liffey Valley to Le Fanu Road For proposed changes see Section 17.4.3.1.1		Medium / High	Low / Medium	Positive Slight Short-term	Positive Slight / Moderate Long-Term
Le Fanu Road to Sarsfield Road For proposed changes see Section 17.4.3.1.2		High	Medium	Negative Moderate / Significant Short-term	Positive Moderate Long-Term

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts	Significance and Quality of Effects (with establishment of landscaping at 15 years post-construction)
Sarsfield Road to City Centre For proposed changes see Section 17.4.3.1.3		Very High	Low	Positive Slight Short-term	Positive Slight / Moderate Long-Term
Streetscape Characteristics and Visual Impacts					
ACA	For proposed changes see Section 17.4.3.2.1	Very High	Negligible	Neutral Imperceptible Short-Term	Neutral Imperceptible Long-Term
Conservation Areas	For proposed changes see Section 17.4.3.2.2	Very High	Negligible	Neutral Imperceptible Short-Term	Neutral Imperceptible Long-Term
Residential Conservation Areas	For proposed changes see Section 17.4.3.2.3	High	Moderate	Positive Moderate Short-Term	Positive Moderate Long-Term
Protected Structures	For proposed changes see Section 17.4.3.2.4	Very High	Low	Neutral Slight Short-term	Positive Slight Long-Term
Amenity Designations	For proposed changes see Section 17.4.3.2.5	High	Low	Negative Slight Short-term	Neutral Slight Long-Term
TPOs / tree Protection Objectives	There are no tree preservation orders / preservation objectives along the Proposed Scheme.	N/A	N/A	N/A	N/A
Preserved Views / Scenic Views etc.	There are no preserved views / scenic views along the Proposed Scheme.	N/A	N/A	N/A	N/A
Properties	Part of residential property in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Moderate / Significant Short-term	Negative Moderate Long-Term
	Non-residential properties included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Moderate / Significant Short-term	Negative Moderate Long-Term
	Properties along, fronting and viewing the Proposed Scheme not included in permanent acquisition For proposed changes see Section 17.4.3.2.8	Medium / High	Low	Neutral Slight Short-term	Neutral Slight Long-Term
Trees and Vegetation	For proposed changes see Section 17.4.3.2.9	Medium / High	Medium	Negative Moderate / Significant Short-term	Neutral Moderate Long-Term

17.5.2.1 Review of Photomontages

Photomontages have been prepared from key or illustrative viewpoints to give an indication of changes and potential effects resulting from the Proposed Scheme during the Operational Phase after the implementation of the Proposed Scheme. The proposed views are shown with proposed planting at approximately 10 to 15 years post-completion of the Construction Phase. The existing view available from the chosen viewpoint and the Proposed Scheme changes as illustrated in the photomontage are described. The Photomontages have been prepared in accordance with the methodology set out in Section 17.2.4.8 and are included in Figure 17.2 in Volume 3 of this EIAR.

17.5.2.1.1 Photomontage View 1: View from the Junction of Coldcut Road and Cloverhill Road

View 01: Existing

Figure 17.2.1.1 shows the existing view taken from the Junction of Coldcut Road and Cloverhill Road, looking west along Coldcut Road. In the foreground is the road junction with pedestrian islands visible to the left and right of the view. The background is formed by a three-storey modern apartment block and boundary hedge at Coldcut Park on the left, and trees along the north side of Coldcut Road to the right. A small grass verge is present in front of the apartment hedge boundary. Various road signage, traffic signals and galvanised pedestrian barriers form the only other landscape features in the view. The character is one of a main road junction with adjacent modern residential development and good levels of roadside tree planting.

View 01: As Proposed

Figure 17.2.1.2 shows the proposed view taken from the Junction of Coldcut Road and Cloverhill Road, looking west along Coldcut Road. The primary changes in the view comprise a new cycle path to the left (south) side of Coldcut Road, and changes to junction layout including lanes and removal of pedestrian islands and barriers. A new cycle path on the north side of Coldcut Road is visible but not visually prominent. There is no perceivable change to vegetation. There would be no perceivable change to the character of the view but there will be slight improvement in visual amenity due to the removal of the pedestrian barriers.

17.5.2.1.2 Photomontage View 2: View from Coldcut Road looking west

View 02: Existing

Figure 17.2.2.1 shows the existing view taken from Coldcut Road looking west along the road towards the junction with Cloverhill Road. At this point the road comprises two lanes of general traffic with raised segregated footpaths / cycle paths to each side. The road is bounded by tall walls to adjacent residential areas; the left (southern) wall is rendered and the right (northern) wall is constructed of unfinished concrete blockwork. Young / semi mature trees and garden vegetation can be seen over the tops of the walls to both sides, and the roofs of residential development at Palmer's Walk can be seen above the wall to the right. Tall utilitarian lighting columns can be seen along the road to the right and the traffic light and road signage around the Cloverhill Road junction is visible in the distance. The backdrop to the view is created by the residential development at Coldcut Park and by trees along the northern side of Coldcut Road beyond the Cloverhill Road junction. The character is of a road corridor tightly enclosed with tall walls with some adjacent residential development evident but not overlooking.

View 02: As Proposed

Figure 17.2.2.1 shows the proposed view taken from Coldcut Road looking west along the road towards the junction with Cloverhill Road. The primary changes to the view are an overall widening of the road to the north, addition of two bus lanes, removal and reinstatement of the boundary wall on the right of the view and loss of vegetation in residential open space behind, and the creation of segregated cycle paths. Lighting columns are moved to align with the widened road. The new wall to the northern side of the road has a rendered finish and footpath surfacing changes from asphalt to poured concrete. There would be no perceivable change to the character of the view but there would be a slight change in visual amenity through loss of vegetation and an improvement in appearance of the northern wall on the right of the view.

17.5.2.1.3 Photomontage View 5: View from Blackditch Court and Ballyfermot Road looking west

View 5: Existing

Figure 17.2.3.1 shows the existing view taken from the junction of Blackditch Court and Ballyfermot Road looking west along Ballyfermot Road. At this point Ballyfermot Road consists of three lanes for general traffic, with two lanes along Blackditch Court. The grounds of St Matthew's Catholic Church with mature tree planting fills the left side of the view, and terraces of two storey mid-twentieth century residences with semi-mature street tree planting are the key features along the right (north) of the view. A signalised pedestrian crossing is visible in the middle ground and access to the residences on the north side of the road is by a parallel access road separated by a wide concrete reservation. Overhead service poles and utilitarian lighting columns are visible all along the road.

Footpath surfaces are poured concrete and are segregated from raised cycle tracks by line markings. The character is of a relatively narrow intra-urban regional road through a suburban residential neighbourhood with established trees along the street and within adjacent spaces.

View 5: As Proposed

Figure 17.2.3.2 shows the proposed view taken from the junction of Blackditch Court and Ballyfermot Road looking west along Ballyfermot Road. The primary changes to the view are the widening of the road to the north, removal of the concrete reservation, introduction of a segregated cycle track to the south side of the road segregated by a continuous kerb, and introduction of a raised cycle track on the north side of the road adjacent to the footpath. Footpath surfacing has been upgraded to concrete block paving. Roadside parallel parking is introduced to the north side of the road and there are also general changes to road lighting and signage. There is no visible loss of trees within the view and new trees are introduced to the north side of the road adjacent to the new parking areas. There would be a minor negative change to the character of the view due to the widening of the road, however, the visual amenity of the scene benefits from the introduction of new tree planting and more attractive paving.

17.5.2.1.4 Photomontage View 10a: View from junction of Kylemore Road and Ballyfermot Road

View 10a: Existing

Figure 17.2.4.1 shows the existing view taken from the roundabout junction of Kylemore Road and Ballyfermot Road looking northwest over towards the Church of Our Lady of the Assumption. The area of grassland, with a central statue and established trees forms the majority of the view. The Church, Father Lemass Court, a construction site and parts of the carriageways around the roundabout are visible in the background through the trees. The character is of a well-established planted roundabout, with a central inaccessible green space, surrounded by significant mixed development.

View 10a: As Proposed

Figure 17.2.4.2 shows the proposed view taken from the junction of Kylemore Road and Ballyfermot Road looking northwest over towards the Church of Our Lady of the Assumption. The principal change is the transformation to a signalised junction and resultant relocation of green space to the periphery of the junction. The view is opened up with much greater visibility of the surrounding area including the front elevation of the church. The statue has been relocated to the front of the church in a new landscaped area, and significant new tree planting is also shown to the front of the church, although much of the façade is visible. There is a clearly discernible change in the character of the view from a roundabout with established landscaping to a signalised junction. There is a reduction in the visual amenity of the view through loss of the visible extents of vegetation, although this is mitigated to an extent by the introduction of a greater number of new street tree planting as well as new multi-functional open spaces to the periphery of the junction.

17.5.2.1.5 Photomontage View 11a: View from Ballyfermot Road looking east

View 11a: Existing

Figure 17.2.5.1 shows the existing view taken from Ballyfermot Road looking east along the road. The road is composed of two general traffic lanes, one westward bus lane, and a cycle lane to the left (north) side. To the left side of the road is a substantial band of tree planting to the boundary of St Gabriel's and St Michael's National School which is separated from the road by a rendered wall and steel bar railing. A bus stop is present in the middle-ground of the view on the north side of the road, and various overhead utilities, street lighting and traffic signals are visible as clutter on the south (right) side of the road. Some young street tree planting is visible along the right side of the road. On the far right of the view are residential terraced properties with low rendered walls bounding their curtilages. The character is of a residential street / minor regional road corridor with greening provided by street trees and the adjacent major tree line.

View 11a: As Proposed

Figure 17.2.5.2 shows the proposed view taken from Ballyfermot Road looking east along the road. The primary change to the view is the widening of the road to the north to accommodate a new eastward bus lane,

reinstatement of the boundary wall and railing, and the large-scale removal of the existing mature tree line to the boundary of St Gabriel's and St Michael's National School. New tree planting is shown to the boundary at a well-established stage. New at grade cycle tracks segregated by continuous kerbs are introduced to both sides of the road and the existing bus stop is replaced by an island bus stop. Footpath paving is changed from poured concrete to concrete paving blocks. There would be a substantial change to the character and visual amenity of the view, mainly resulting from the removal of the existing tree line to the primary school boundary. This would be mitigated over time by the replacement tree planting, and to a degree by the upgrade of footpath surfacing.

17.5.2.1.6 Photomontage View 13: Ballyfermot Road looking east

View 13: Existing

Figure 17.2.6.1 shows the existing view taken from Ballyfermot Road looking east along the road. The road is composed of two general traffic lanes, a mandatory cycle lane to the left (north) side and an advisory cycle lane to the right (south) side. The frontage of the former De La Salle National School is prominent to the left of the view and separated from the road by a line of young trees and a wall with railings. A terraced row of mid-twentieth century residences forms the right of the view, with low rendered walls bounding their curtilages. A pedestrian crossing intersects the road in the middle of the view. There are a small number of young street trees visible along the road, and in the distance is a tall clump of mature trees at Markievicz Park forming the background to the view. The character is of a residential street / minor regional road corridor with greening provided by trees along the street, at the former National School and at Markievicz Park.

View 13: As Proposed

Figure 17.2.6.2 shows the proposed view from Ballyfermot Road looking east along the road. The primary change to the view is the widening of the road to the north into the grounds of the former De La Salle National School, and the introduction of two new bus lanes in addition to two lanes for general traffic. At grade cycle tracks, segregated by continuous kerbs, are introduced to both sides of the road. There is a substantial loss of tree planting to the front of the former national school within the grounds, and loss of adjacent street trees. There is the introduction of new tree planting along the realigned boundary wall and railing. There would be a considerable change to the character and negative impact on visual amenity of the view, mainly resulting from the removal of the existing tree line to the boundary of the former school. This would be mitigated to a degree over time by the replacement tree planting within the former school grounds.

17.5.2.1.7 Photomontage View 14: View from the junction of Ballyfermot Road and Garryowen Road

View 14: Existing

Figure 17.2.7.1 shows the existing view taken from the junction of Ballyfermot Road and Garryowen Road looking east along Ballyfermot Road. At this point the road is composed of two general traffic lanes and a mandatory cycle lane to the left (north) side. A small island separates the two lanes just to the east of the junction. The south-eastern corner of the frontage of the former De La Salle National School is visible to the left of the view and separated from the road by a line of young trees and a wall with railings including a pedestrian gate with decorative stone gateposts. Beyond the school, tall stands of mature trees within the grounds of the former Mount La Salle Monastery are prominent in the centre of the view. The right of the view is dominated by a mature band of trees along the edge of Markievicz Park. The character is of a residential street / minor regional road corridor enclosed to each side with significant tree cover.

View 14: As Proposed

Figure 17.2.7.2 shows the proposed view taken from the junction of Ballyfermot Road and Garryowen Road. The primary change to the view is the widening of the road to the north to accommodate two new bus lanes and the setting back of the boundary walls to the former De la Salle National School and the former Mount La Salle Monastery, including removal of established trees and other vegetation. A raised cycle track is introduced to the north side of the road and a segregated at-grade cycle track is introduced to the south side. A new bus stop is located on the south side outside Markievicz Park. There would be a considerable change to the character and negative impact on visual amenity of the view resulting from the removal of the existing trees, including mature

specimens, along the north side of the road. This would be mitigated to a degree over time by the replacement tree planting within the school / monastery grounds.

17.5.2.1.8 Photomontage View 15: View from Ballyfermot Road looking north-east

View 15: Existing

Figure 17.2.8.1 shows the existing view taken from Ballyfermot Road looking north-east along the road towards the junction with O'Hogan Road. At this point Ballyfermot Road is composed of two general traffic lanes with an advisory cycle lane to each side of the road. To the foreground on the right is the north-east corner of Markievicz Park, with a band of young trees along the edge, and to the left are a line of trees and a tall, rendered boundary wall with brick piers to the edge of the residential area of The Steeples. In the distance are residential properties further along Ballyfermot Road. Overhead service poles and utilitarian lighting columns are visible all along the road. The character is of a residential street / minor regional road corridor enclosed to each side with significant tree cover.

View 15: As Proposed

Figure 17.2.8.2 shows the proposed view taken from Ballyfermot Road looking north-east along the road towards the junction with O'Hogan Road. The primary change in the view is a widening of the road to the north-west with realignment of the boundary wall to The Steeples and subsequent loss of mature trees. New cycle tracks, segregated by a continuous kerb, have been introduced to both sides of the road, and a bus lane has been created to the south-east side of the road. There would be a considerable change to the character and negative impact on visual amenity of the view resulting from the removal of the existing mature trees adjacent to The Steeples along the north-west side of the road. This would be mitigated to a degree over time by the replacement tree planting within the curtilage of The Steeples and by the introduction of a new planting bed and street tree to the entrance of O'Hogan Road on the right.

17.5.2.1.9 Photomontage View 17: View from junction of St Laurence Road, Ballyfermot Road and Sarsfield Road

View 17: Existing

Figure 17.2.9.1 shows the existing view taken from the junction of St Laurence Road, Ballyfermot Road and Sarsfield Road looking east along Sarsfield Road. At this point Ballyfermot Road is composed of two general traffic lanes with an advisory cycle lane to the north side of the road. A traffic island is present in the road in the middle distance. The view is focused on the boundary of Longmeadows Pitch and Putt on the northern side of the road; this boundary is composed of steel bar railing to the top of a retaining wall of rubble-stone to the left of the view (west), changing to a taller rendered wall and railing further along the road to the east. The railings have a utilitarian appearance and in combination with various overhead service poles and utilitarian lighting columns along the road, create a sense of a visually cluttered streetscape. Trees and mown grassland to the left in the pitch and putt course and to the right along the boundaries to adjacent residential properties, helps to soften the scene. The character is of a residential street / minor regional road corridor with substantial detracting features through an area of recreational land and suburban residential properties with well-established trees.

View 17: As Proposed

Figure 17.2.9.2 shows the proposed view from the junction of St Laurence Road, Ballyfermot Road and Sarsfield Road looking east. The primary changes to the view are widening of the road to the north with the realignment of the retaining wall to the boundary of the pitch and putt course. The appearance of the new wall is improved with the use of rubble-stone cladding along the full visible extents within the view. The widened road has two additional bus lanes and cycle tracks segregated by continuous kerbs. The traffic island is removed. A new area of mixed planting providing SuDS functions has been created between the retaining wall and the road, helping to visually soften the wall. There would be a positive change to the character and visual amenity of the view due to the improved appearance of the wall and the introduction of a new planted area at street level.

17.5.2.1.10 Photomontage View 19: View from the junction of Sarsfield Road and Landen Road looking west

View 19: Existing

Figure 17.2.10.1 shows the existing view taken from the junction of Sarsfield Road and Landen Road looking west along Sarsfield Road. At this point the road is composed of two lanes for general traffic, a right turn lane into Landen Road, and advisory cycle lanes to both sides of the road. The view is framed by terraced and semi-detached mid-twentieth century residential properties to the left (south) and right (north) sides of the road. The majority of the front gardens of these properties have been converted to car parking but full gardens and minor areas of planting have been retained to some properties, including small trees to properties on the right side of the road. Wide footpaths surfaced with poured concrete are present to both sides of the road. Overhead service poles and utilitarian lighting columns are visible as detracting features along the road. The character is of a residential street / minor regional road corridor with a lack of street trees and the frequent conversion of front gardens to car parking detracting from the visual amenity.

View 19: As Proposed

Figure 17.2.10.2 shows the proposed view from the junction of Sarsfield Road and Landen Road looking west along Sarsfield Road. The primary changes to the view are the introduction of cycle tracks segregated by a continuous kerb to each side of the road, the subsequent reduction in width of footpaths and the creation of a new bus lane. As per the existing, footpaths are reinstated in a poured concrete finish. There would be no change to the character or the visual amenity of the view.

17.5.2.1.11 Proposed View 23 – View from Grattan Crescent looking south-west

View 23: Existing

Figure 17.2.11.1 shows the existing view taken from Grattan Crescent looking south-west along the road that is composed of two lanes for general traffic and one bus lane. The road is highly enclosed by tall mature plane trees to both sides of the road, which are a prominent feature of value, and by a tall wall and railing to the boundary of Inchicore National School in the foreground on the right. The end of a terraced residential property on the south side of the road can be seen across the road, and a small portion of the national school can be seen on the right. Trees within Grattan Crescent can be glimpsed to the left of the view over intervening built form. To the right of the view, on the north side of the road, footpaths are surfaced with paving flags with a granite kerb, but poured concrete is used to the south side of the road. The character is of a minor urban street / with greening and sense of enclosure provided by significant trees along the street.

View 23: Proposed

Figure 17.2.11.2 shows the proposed view taken from Grattan Crescent looking south-west. The primary change to the view is the narrowing of the road by the widening of the footpath to the southern side of the road, and the change to a single general traffic lane and two bus lanes. No trees will be lost and there is an upgrade to the paving streetscape with the introduction of concrete paving units to the south side of the road. There would be no change to the character and a slight improvement to the visual amenity of the view.

17.5.2.1.12 Photomontage View 26: View from Emmett Road looking west

View 26: Existing

Figure 17.2.12.1 shows the existing view taken from Emmet Road looking west along the road. The road is an intra-urban road with three lanes of general traffic. There is a terraced row of three-storey residential properties along the south side of the road framing the left of the view. To the right of the view is a small open space of grassland and mature trees, separated from the road by timber post and rail fencing. Residential development is present on both sides of the road, and Inchicore College of Further Education can be glimpsed in the background with significant large trees within the adjacent embankment bordering the road. Trees along the north side of road in the distance and small trees within front gardens help further green the streetscape. Footpaths are surfaced in poured concrete, with staggered utilitarian lighting columns and some minor road signage positioned along the road-side edge. A bus stop and large billboard are located in the middle-distance on the right of the road. The

character is of a residential street / minor regional road corridor with greening provided by street trees, trees in gardens and trees in the adjacent open space to the right.

View 26: As Proposed

Figure 17.2.12.2 shows the proposed view taken from Emmet Road looking west. The primary changes to the view include the reduction of the width of the footpaths to the south side of the road and the introduction of designated parking spaces to both sides of the road. There is minor relocation of lighting columns along the road. There is no change to the character.

17.5.2.1.13 Photomontage View 29: From James's Street looking west

View 29: Existing

Figure 17.2.13.1 shows the existing view taken from James's Street looking west along the road towards the junction with Bow Lane West. The view is focused on a landscaped area that is located between the two streets that has prominent features in the form of tall mature trees and the historic Obelisk Fountain. Mixed two and three storey buildings are visible to both sides of the view in the form of mainly historic buildings, but also some modern apartment buildings with massing reflecting the historic form. Surrounding footpaths and paved areas use a mixture of paving types including concrete paving slabs and blocks, while road surfaces are composed of asphalt. Ornamental lighting columns are present along the left side of the view along the south side of James's Street. The character is of an urban street junction in a mixed use historic neighbourhood with a prominent historic monument and open space forming a focal point.

View 29: As Proposed

Figure 17.2.13.2 shows the proposed view taken from James's Street looking west along the road towards the junction with Bow Lane West. The primary changes to the view are the introduction of new paving and landscape layout to the central open space surrounding the Obelisk Fountain, the change to blockwork paving along Bow Lane West and the use of new block paving to surrounding footpaths. The road layout is amended with a revised lane layout and new cycle lanes to each side of James's Street. There is no tree loss to the central landscaped area. There would be no change to the character of the view and a slight improvement in the visual amenity through the upgrades to the paving and introduction of paving blocks to Bow Lane West.

17.5.2.1.14 Photomontage View 30: View from Cornmarket looking east

View 30: Existing

Figure 17.2.14.1 shows the existing view taken from Cornmarket looking east towards St Audoen's church which can be seen beyond the junction of Bridge Street Upper, High Street and Cornmarket. The road is composed of four lanes of general traffic separated by a central planted median, and a cycle lane is visible to the left (north) side of the road. The view is framed to the left by four-storey historic commercial residential buildings at Cornmarket, with ornamental masonry to their facades. These buildings are separated from the main road corridor by a left turn slip road connecting to Bridge Street Upper and adjacent loading / parking bays. The slip road and surrounding pedestrian areas are surfaced in high quality natural stone with natural stone kerbs, and there is a line of modern ornamental lighting poles to the edge of the road. A band of dark paving is partly visible crossing the pedestrianised areas indicating the historic alignment of the city walls. To the right the view is screened by a row of semi-mature street trees to the central median of Cornmarket, which partially screens views of St Audoen's church in the background. Trees within the grounds of the church form the background to the view. The character is of a historic urban street / urban road corridor with high quality landscape treatments, well established trees and a prominent historic landmark building (St Audoen's Church).

View 30: As Proposed

Figure 17.2.14.2 shows the proposed view taken from Cornmarket looking east. The primary change to the view is the removal of the left turn slip road with parked cars and change to a continuous pedestrianised paved area in light coloured natural stone with dark stone banding running perpendicular to the road. The dark band of paving indicating the historic alignment of the city wall is retained, and there is the introduction of new street trees, shown

at a well-established stage. All existing trees within the view are retained with the exception of one which is hidden behind the trunk of a tree in the foreground. There is a change in the road layout to accommodate a loading area to the left and reallocation of the two outer general traffic lanes to bus lanes. The cycle lane on the left is removed and replaced with a cycle track segregated by a block paved boundary. There is a notable positive change to the character and visual amenity resulting from the creation of a high quality pedestrianised area with new street trees to the south side of Cornmarket junction.

17.6 Residual Impacts

17.6.1 Construction Phase

Mitigation of landscape (townscape) and visual impacts during the Construction Phase is focused on ensuring the protection of elements to be retained (e.g. mature trees) and providing for a degree of visual screening of particular aspects of the works. 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 not 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, for the most part, significant Construction Phase effects remain unchanged in the post-mitigation and monitoring scenario as set out in Table 17.11.

Table 17.11: Summary of Predicted Construction Phase Residual Effects (Moderate or Higher)

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Townscape and Streetscape Character				
	Liffey Valley to Le Fanu Road For proposed changes see Section 17.4.3.1.1	Medium / High	High	Negative Significant Temporary / Short-Term
	Le Fanu Road to Sarsfield Road For proposed changes see Section 17.4.3.1.2	High	Very High	Negative Very Significant Temporary / Short-Term
	Sarsfield Road to City Centre For proposed changes see Section 17.4.3.1.3	Very High	Medium / High	Negative Significant Temporary / Short-Term
Streetscape Characteristics and Visual Impacts				
ACA	For proposed changes see Section 17.4.3.2.1	Very High	Low / Medium	Negative Moderate Temporary / Short-term
Conservation Areas	For proposed changes see Section 17.4.3.2.2	Very High	Medium	Negative Moderate / Significant Temporary / Short-term
Residential Conservation Areas	For proposed changes see Section 17.4.3.2.3	High	Medium / High	Negative Moderate / Significant Temporary / Short-Term
Protected Structures	For proposed changes see Section 17.4.3.2.4	Very High	Medium / High	Negative Moderate / Significant Temporary / Short-Term
Amenity Designations	For proposed changes see Section 17.4.3.2.5	High	High / Very High	Negative Very Significant Temporary / Short-Term
TPOs / Tree Protection Objectives	There are no tree preservation orders / preservation objectives along the Proposed Scheme	N/A	N/A	N/A

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Preserved Views / Scenic Views etc.	There are no preserved views / scenic views along the Proposed Scheme.	N/A	N/A	N/A
Properties	Part of residential property in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Significant / Very Significant Temporary / Short-Term
	Non-residential properties included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	Very High	Negative Very Significant Temporary / Short-Term
	Properties along, fronting and viewing the Proposed Scheme not included in temporary acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Significant Temporary / Short-Term
Trees and Vegetation	For proposed changes see Section 17.4.3.2.9	Medium / High	Very High	Negative Very Significant Short-term

17.6.2 Operational Phase

Residual landscape / townscape and visual effects during the Operational Phase are further influenced by the on-going development, establishment and maturing of landscape / townscape and visual measures, as described in Section 17.5.2. A summary of residual Operational Phase effects (rated moderate or greater) following establishment of landscape measures at 15 years Post-Construction Phase, is presented in Table 17.12.

Table 17.12: Summary of Predicted Operational Phase Residual Impacts (Moderate or Higher)

Townscape Receptor	Proposed Change	Baseline Townscape Sensitivity	Magnitude of Change	Significance and Quality of Townscape / Streetscape / Visual Effects / Impacts
Townscape and Streetscape Character				
	Le Fanu Road to Sarsfield Road For proposed changes see Section 17.4.3.1.2	High	Medium	Positive Moderate Long-term
Streetscape Characteristics and Visual Impacts				
Properties	Part of residential property in permanent acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Moderate Long-term
	Non-residential properties included in permanent acquisition For proposed changes see Section 17.4.3.2.8	High	High	Negative Moderate Long-term
Trees and Vegetation	For proposed changes see Section 17.4.3.2.9	Medium / High	Medium	Neutral Moderate Long-Term

17.7 Conclusion

As described in Chapter 3 (Consideration of Reasonable Alternatives) of this EIAR and noted at Section 17.4.1.2 of this Chapter, the Proposed Scheme has been subject to an iterative design development process which has sought insofar as practicable to avoid or reduce negative impacts, including townscape and visual impacts. Nevertheless, the Proposed Scheme will give rise to some degree of townscape and visual effect, most notably during the Construction Phase. These impacts arise especially where there is temporary and / or permanent acquisition of lands associated with residential or other properties including amenities, and where tree removal is required. The Proposed Scheme includes for replacement of disturbed boundaries, reinstatement of the

Construction Compounds, return of temporary acquisition areas, and for additional tree and other planting where possible along the Proposed Scheme.

In the Operational Phase residual effects will remain for properties experiencing permanent land acquisition and in the loss of trees, particularly along the section of the Proposed Scheme between Le Fanu Road and Sarsfield Road. There will be positive effects for the other sections of the Proposed Scheme as the Proposed Scheme provides for substantial improvements in the urban realm, which will provide positive long-term effects for all of the townscape and visual character in areas along the Proposed Scheme. The Proposed Scheme will also provide for a significantly enhanced level of service for public transport and for pedestrian / cycle connectivity.

17.8 References

British Standards Institution (BSI) (2012) BS 5837:2012 'Trees in relation to in relation to design, demolition and construction. Recommendations'

British Standards Institution (BSI) (2010). BS 3998:2010 'Tree Work – Recommendations'

CABE and ODPM (2002). Paving the way: How we achieve clean, safe and attractive streets: a research project.

Council of Europe (2000). European Landscape Convention 2000.

DCC (2016a) Dublin City Development Plan 2016 – 2022

DCC (2016b). Dublin City Tree Strategy 2016-2022

DCC (2019). Dublin City Parks Strategy 2019-2022

[SDCC \(2016\) South Dublin County Council Development Plan 2016-2022.](#)

Department of Culture, Heritage and the Gaeltacht (2020/21). Database provides access to National Monuments Service Sites and Monuments Record (SMR) and the National Inventory of Architectural Heritage [Online] Available from webgis.archaeology.ie/historicenvironment/

Department for Transport [DoT] (2007). Manual for Streets.

Department of Transport [DoT] (2009). Department of Transport National Cycle Policy Framework.

Department of Transport [DoT] (2009). National Cycle Policy Framework

DHPLG (2018). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment

Environmental Protection Agency (EPA) (2022). Guidelines on the Information to be contained in Environmental Impact Assessment Reports

EPA (2020/21). EPA Maps [Online] Available from gis.epa.ie/EPAMaps

Google (2020/21). Google Maps [Online] Available from www.google.com/maps

Landscape Institute and the Institute of Environmental Management and Assessment [IEMA] (2013). Guidelines for Landscape and Visual Impact Assessment 3rd edition.

Landscape Institute (LI) (2018). Landscape Institute Technical Information Note 05/2017 (Revised 2018) on Townscape Character Assessment.

Landscape Institute (LI) (2019). Technical Guidance Note 06/2019 on Visual Representation of Development Proposals.

Microsoft (2020/21). Bing Maps [Online] Available from www.bing.com/maps

National Parks and Wildlife Service (2020/21). Datasets provides information on national parks, protected sites and nature reserves [Online] Available from www.npws.ie/maps-and-data

Natural England (2014). An Approach to Landscape Character Assessment.

National Transport Authority (NTA) (2013). Greater Dublin Area, Cycle Network Plan.

National Transport Authority (NTA) (2020). Urban Realm Concept Designs.

OSI (2020/21). OSI Current and historical mapping [Online] Available from map.geohive.ie/mapviewer.html

OSI (2020/21). OSI Historical aerial imagery [Online] Available from map.geohive.ie/mapviewer.html

Torbay Council (2004). Torbay Streetscape Guidelines.

Directives and Regulations

Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (the EIA Directive)

S.I. 30 of 2000 – Planning and Development Act (2000)

S.I. 600 of 2001 – Planning and Development Regulations (2001).