

13 LANDSCAPE & VISUAL IMPACT ASSESSMENT

13.1 Introduction

Ronan MacDiarmada & Associates Ltd were commissioned by Stephen Little & Associates, Planning Consultants, on behalf of Adwood Limited to prepare a Landscape and Visual Impact Assessment to accompany a planning application for residential development in the Townlands of Kilcartery, Corkagh Demesne, Deansrath and Nangor, Co. Dublin (to be referred to as Kilcartery).

The assessment shall demonstrate the visual impact, if any on the existing and adjoining landscape and its character. This chapter shall examine the existing and surrounding landscape of Kilcartery and the visual impacts upon the landscape presented by the new proposed residential development.

The development shall consist of 1,034 no. Units proposed and ancillary development located east of the Outer Ring Road (R136), south of the New Nangor Road, (R134), west of an existing housing estate of Cherrywood and North of the existing Corkagh Park. The site is located 1.5 km from the centre of Clondalkin, a busy satellite town of Dublin city and is 11km to O Connell Street, Dublin city.

Kilcartery shall form an important and expanding residential housing development in this area.

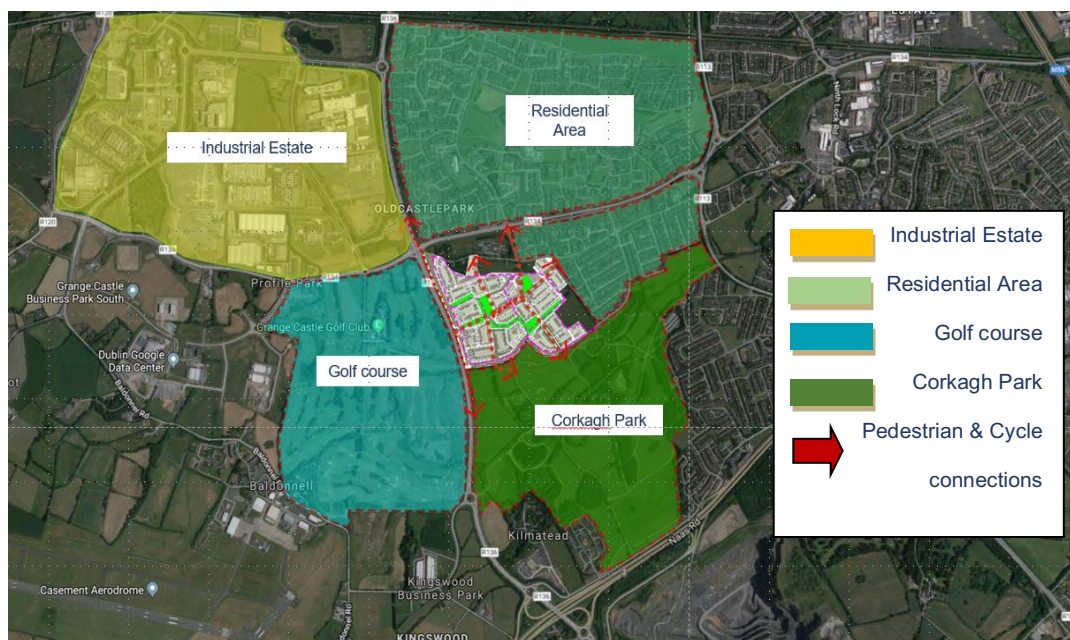


Figure 13.1: Location Map of Kilcartery

The proposed residential units shall be characterised by houses, semi-detached houses, duplex units, terraced houses and apartments with open spaces, retention of existing trees, associated tree planting, roads, driveways, and new boundary treatments. The proposal also includes drainage, and electricity sub – station and all associated works facilitating the proposed development.

13.2 Methodology Used & Description of The Receiving Environment

Landscape and Visual Assessment Methodology: -

This assessment of the impact on the Landscape and Visual character as a result of the proposed development is based on the guidelines laid down by the Environmental Protection Agency (EPA) in the following: -

- Revised Guidelines on the information to be contained in Environmental Impact Statements Draft September 2015.

- Advice Notes for Preparing Environmental Impact Statements Draft (September 2015)
- EPA EIAR Guidelines (August 2017).

The following Methodology was used in this assessment: -

1. A desk top study of the proposed site and its environs, including reviewing aerial photography and ordinance survey documents.
2. A site survey was undertaken to determine the character of the landscape and the surrounding area, including site visits during the month of February & May 2019
3. An assessment of the proposed development was carried out by examining the layout plans, elevations and sections to determine the impacts of the development.
4. An evaluation of these impacts was carried out in accordance with the criteria set out in the EPA guidelines.

13.2.1 Definition of Landscape

Ireland is a signatory to the European Landscape Convention (ELC). The ELC defines landscape as:

'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'.

This definition is important, as it defines that the landscape is not only a physical and visual amenity but provides for a range of functions: as a cultural resource, the interaction of man and landscape has formed the basis of much of our cultural heritage and values. The rhythms of the land as it was settled has informed what Kilcarbery is today. The landscape provides opportunities for passive and active recreation. It contributes to the sense of place, as over time and place various histories and interactions have formed a sense of place for the local populations. The landscape provides also a historic record and also is a resource for food production, sources of energy and in the natural cycle, oxygen, water as the source for materials for living. The landscape has the ability to renew itself.

13.2.2 Forces for Landscape Change

Landscape in Kilcarbery is not unchanging. It has changed with the settlement pattern over the last several hundred years. It has progressed from wilderness to agriculture and settlement. The patterns of settlement have been driven primarily by economic need and the requirement to provide shelter and a food resource. In this frame, it has to be accepted that change shall occur and it requires finding an appropriate balance between economic, social and environmental forces and values.

In this the landscape proposals has focused on biophilic design i.e. Bringing Nature into the Urban realm so that the residents may have a sense of value and place in the location in which they reside. This shall encourage the growth of community in Kilcarbery.

Climate change was also one of the factors which informed this proposed design consideration, i.e. the need to mitigate and offset issues associated with urban development. In this the approach to surface run off is integrated with landscape solutions in the SUDS requirements. It was considered very important to be able to manage the water and more extreme weather and rainfall patterns. The use of Natural falls, existing ditches, tree pits and rain gardens have been adopted as part of this new landscape and is a positive visual impact upon the landscape and the environment.

13.2.3 Nature of Impacts – Impact Significance Criteria

In determining the Visual Impacts, the following definitions were used to assess the significance of the impacts: -

Imperceptible

An effect capable of measurement but without noticeable consequences.

Not significant

An effect which causes noticeable changes in the character of the environment but without noticeable consequences

Slight Effects

An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Moderate Effects

An effect that alters the character of the environment in a manner that is consistent with existing and emerging trends.

Significant Effects

An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.

Very Significant

An effect which, by its character, magnitude, duration or intensity significantly alters the majority of a sensitive aspect of the environment.

Profound Effects

An effect which obliterates sensitive characteristics.

13.2.4 Terms used to describe Quality of visual impact: -

Neutral Impact:	A change which has imperceptible effects on the quality of the landscape.
Positive Impact:	A change which improves the quality of the environment or landscape.
Negative Impact:	A change which reduces the quality of the environment or landscape.

13.2.5 Terms used to describe the Duration of visual impact: -

Momentary Effects	Seconds to Minutes
Brief Effects	Less than a day
Temporary Effects	Less than a year
Short-term Effects	Lasting 1 to 7 years

Medium-term Effects	Lasting 7 to 15 years
Long-term Effects	Lasting 15 to 60 years
Permanent Effects	Lasting over 60 years
Reversible Effects	Effects that can be undone
Frequency of Effects	Describe how often the effect will occur

13.3 Existing Visual Character

The proposed development site is approximately 28.5 hectares, located East and South East of two large Business Parks, Grange Castle and Profile Park and Grange Castle golf course.

This is an area characterised by the expanding town of Clondalkin, with expansive housing developments to the east and north.

It is located on low lying land with a number of views and walkways. The Low Lying Character Type has an open character combined with large field patterns with tree belts and hedges. There are a number of existing native hedgerows that formed part of an overall field pattern of the area but now shares with those of Corkagh Park, formerly Corkagh Demesne.

Corkagh Park lies immediately to the south of the lands, Corkagh Park and Demesne is an important amenity with historical, and recreational value, providing playgrounds, paths and green space for the local population.

The proposed housing area lies within an infill area where lands have been developed for a range of uses. Housing developments to the North and East, with Business Parks located to the North West and west. Corkagh Park is to the south with a developed golf course run by the local Authority to the East.

The land of Kilcarbery remains undeveloped, and it is currently left fallow and unused. The hedgerows are no longer functioning as boundaries and are extending into the field system. The grassland, unused, is being slowly colonised by pioneer trees of birch and willow.

13.3.1 Landscape Type - Characteristics of the Proposed Development

The proposed scheme involves the development a variety of mixed tenure homes, in a range of house types, that will create a new Residential Neighbourhood at Kilcarbery, to accommodate an expected increase in population of Dublin City and Metropolitan Area

The main vehicular access to the site shall be directly from the R136, the outer ring road, and from the Old Nangor Road to the North. Pedestrians may access from these roads as well as from other pedestrian connections. There shall be a number of pedestrian access points from Corkagh park and from the housing development to the east.

It is intended that the site shall retain much of the existing native trees and hedgerows. On completion of the residential development, it shall be landscaped to a very high standard, with tree planting and paving that shall characterise the external open spaces and shall feature a high standard of landscape development. The open spaces shall contains green areas, paths, play spaces and extensive tree and bulb planting.

Although works shall occur in the construction of the houses, much of the hedgerows and trees shall be retained within open spaces. The character of these hedgerows retained shall blend the new development with Corkagh Park to the south.

The Soft Landscape proposals shall compliment the development aesthetically and functionally and shall tie in with the existing and surrounding landscape. The proposed and existing trees, hedges and shrubs shall position the development into the landscape and provide a large element of screening. It is intended to tie in with and blend the development into the local landscape befitting of its rural – urban background.



Figure 13.2: Proposed Landscape Masterplan

13.3.2 In landscape terms the proposed development will have the following objectives: -

1. To renew and augment existing vegetation with planting suitable to the local & new proposed environment;
2. To create new landscape features & habitats that will complement and enhance the Landscape utilizing principles of Biophilic design.
3. To provide a new landscape feature in the form of a housing development that will significantly enhance and retain the character of the area.

13.4 Analysis

13.4.1 Potential Impact of the Proposed Development

The visual impacts of the proposed development on the landscape are considered in the context of the construction and operational stages. Generally, the development shall reduce the amount of green space, replacing it with the proposed units, and associated walls, roads and driveways.

The space that is being removed is a number, or part of fields with a hedgerows and trees as boundaries. It is proposed to retain many of these hedges and trees in open spaces as landscape buffers within the proposed scheme. The impact on existing landscape character may be characterised as moderate at this site. However, the landscape is not designated for protection and the proposed development is consistent with regional and local level planning objectives to develop the land for residential use, and with the pattern of surrounding development in this area

The main visual changes shall be the extent and height of the proposed residential development and associated building works to the landscape.

The design and organisation of the open space shall ameliorate the impact of this development and of this decrease in grass area. This shall be aided through the retention and protection of significant tree and hedgerow field boundaries / landscape buffers throughout the open spaces. The provision of extensive semi - mature tree planting, native hedge planting to street areas and open spaces. The hedge and tree planting shall ameliorate the mass of the housing into the landscape.

Visual impact of the lines and the height of the buildings shall be mitigated by the retention of existing trees and hedgerows, the proposed use of more soft landscape materials shall further reduce the impact of the development by integrating it with the landscape.

Semi - mature trees and shrub planting shall give an immediate effect, tying in with the surrounding landscape. The impact of the landscape intervention on the existing development shall be positive and long term, the impact on the agricultural nature of the surrounding landscape shall be moderate in the long term.

The overall landscape and visual impact of the proposed development, in combination with the existing surrounding housing estates act with the existing housing estates and encroaching town of Kilcarbery - Clondalkin, shall be moderate in the short term. The proposed development is expected to be perceived as an integrated extension of the Clondalkin settlement over time, with landscape integration a defining characteristic.

13.4.2 Visual Impact of the removal of the site vegetation

During the construction stages traffic movement, excavation operations and construction works shall have a significant visual impact on the site. There may be some moderate - significant visual impacts during the construction stage.

Grass forms the groundcover over a portion of the site with native hedges and trees providing screening and boundary treatment.

The removal of the grass will be necessary for the development to commence. Some of the existing native hedge and tree line internally shall be removed due to the requirement to provide for access roads and housing. However extensive lengths of hedge shall be retained.

Although the portion of 'Green' land will be reduced, and some of the native hedge line and mature trees shall be removed, no loss of botanical significance shall be incurred. The visual impact upon the area shall be moderate – significant to the short to medium term.

13.4.3 Potential Visual Impact

The proposed development respects the natural attributes of the site, retaining the existing hedgerows, in the open spaces. These hedgerows shall form an important link that shall provide linkages through the development to existing connections in the surrounding environment.

Internally and to the boundaries the existing trees and hedgerows shall be retained as much as possible, to provide for existing habitats to survive.

In terms of development, this proposal, by respecting the natural hedgerows and trees, provides a positive visual impact to the area.

There shall be new homes with a landscape scheme, both hard and soft, accompanying them to provide a highly developed and coherent design.

The proposed houses, roads, parking and planting shall be clearly identified and developed in an organised manner.

The potential visual impact shall be negative in the short term and shall change to neutral /positive development in the long term, as new housing is developed

The development shall therefore be a maturing site becoming increasingly knitted to the fabric of the landscape in this area, which in isolation has a suburban feel but increasingly urban.

The retention of existing hedgerows and the planting of trees and shrubs shall mitigate the impact of the dwellings in the landscape. The planting shall provide visual relief and add to the amenity of the current landscape. The planting shall be a positive visual impact which shall be immediate and long term. However as the homes have been lived in for a period, the upgrade and improvement of the external spaces shall have a positive impact on the landscape and reduce the visual impact upon nature of the location.

13.4.3.1 Visual Impacts due to introduction of New Structures & Buildings

The introduction of the proposed buildings shall be visually significant as they are the vertical elements of the proposal. However existing trees and hedgerows shall reduce the visual impact as it has established vertical elements, i.e. trees. The main visual impact shall be the mass of the proposed structures.

The new structures and associated works shall reduce the amount of open space and remove a number of trees within the site. The retention of much of the existing hedgerows in dedicated open space and the associated planting shall mitigate any negative impact in the medium to long term.

The proposed development will require the regrading of the site which will generate limited impacts to the existing topography. In the short term and long term, the visual impact of the development will be moderate to significant, due to the flat topography of the site and the proposed extensive landscape development, utilising existing vegetation and proposed new trees and planting.

13.4.3.2 Visual Impacts due to access roads

The entrance and access roads shall be well defined with extensive avenues of trees – it shall follow the existing hedgerow and trees.

Internally there shall be a hierarchy of roads with associated details. The roads shall be heavily planted with semi mature trees, pollinator plants and hedges, reducing the impact of the road on the environment.

As the site is not elevated, there shall be no need for excessive 'Cut and Fill' work, allowing the access roads to have a minimal visual impact.

The retention of many of the existing hedgerows, in defined open space areas, shall further reduce the impact of the access roads.

13.4.3.3 Visual impacts due to telecommunications/power lines

On this site, the development shall be served from existing services and telecommunications. The services on site shall be underground. The opportunity to organise and reduce the telecommunication and services shall be utilised to reduce the visual impact, if any of the development.

13.4.3.4 Visual Impact of lighting

The lighting of the new houses shall be limited and shall be typical of a housing development. The existing road, R136 and Old Nangor Road have established lighting levels, which the proposal shall not increase.

Internally the roads and streets shall be lit by individual columns. The columns have been specifically located not to interfere with the proposed and existing trees. Therefore the impact of lighting on the existing landscape shall be moderate in the medium term. –and neutral in the long term as Kilcarbery – Clondalkin develops and blends with existing developments.

The lighting of the development shall reinforce the change in character of the site from that of a semi urban area to that of an urban space. The light in the evening shall link this development to other developments in close proximity. The lighting along the streets shall link with the lighting of the existing residential areas & the R136 and the Old Nangor Road.

The proposed lighting layout was developed in close association with the consulting lighting Engineers OCSC. Proposed trees and Lamp standards were positioned to avoid each other. There is a minimum of 5metre distance between tree and light columns. The organized layout of trees and light columns has resulted in the maximizing of tree planting, as they do not impact on the services. The ordered tree planting on the streets and roads is a positive effect of the design process. The impact shall be positive in the long term.

13.4.3.5 Visual Impact of Landscaping Proposals

The landscape proposals shall consist of retention of much of the existing hedgerows, new planting of a variety of tree species, including native trees, being introduced along with shrubs in specified areas. These proposals shall enhance the landscape character of the housing development. The site will change from a series of fields to a completed development with an associated landscape scheme.

The landscape scheme shall impact on the development in a positive way, working with the landscape through the use of and retention of trees and hedging to create an environment maintaining desirable aspects of the existing landscape and accentuating them through introduction of new elements.

The current street frontage along the R136 shall be retained and is defined by low wall, piers and metal railing. The interface with Corkagh Park shall involve the retention, augmentation and replanting of Native Hedgerows.

There shall be an increase in the species and varieties of plants, notably trees on the existing landscape which was primarily a monoculture of grass.

The landscape proposals shall include for a range of pollinator plants, trees, hedges and shrub planting. The flowering of these plants shall enable bees to flourish but also increase the texture and colour in the landscape. This shall be a positive and long term visual impact.

The concept for the landscape proposals is based on Biophilic design i.e. *to create an environment where the residents want to actively participate in, preserve, and connect with the natural landscape that surrounds them.*

13.5 Predicted Visual Impact of the Proposed Development

13.5.1 Construction Phase - Predicted Impact

During the construction of the development, the area shall be changed from fields to a residential development. The introduction of the built structures, roads boundaries and landscape will be carried while maintaining the existing hedge and trees along the centre of the site.

Tree protection shall be provided to retain the character of the existing trees and hedge.

The development shall be carried out in an organised basis, however, the impact on the initial area of construction shall be significant. Grass areas and some hedges shall be removed to accommodate roads and services.

The retention of habitats throughout the site, combined with the maintaining of the most significant hedgerow in the centre of the site shall reduce the visual impact of the proposal during construction. The requirement to remove some of the hedgerows shall be significant visually in the short term

As the development increases and phasing continues, the improvement in growth and maturity of the planted material trees, hedges and shrubs, shall reduce the visual impact and in the long term be positive.

The greatest impact shall be the views through the site as they will become determined by the elements of housing, walls, roads, trees and hedges.

As the existing hedgerows are being retained in the most part and augmented by the introduction of new trees and planting. The predicted impact during construction shall be moderate in the short term and positive in the long term.

13.5.2 Operational Phase – Parking

The parking areas are on street and shall be ameliorated by extensive tree planting and screened by new planting of pollinator wildflower planting, proposed and existing trees. The organised layout of the parking spaces and tree planting shall be beneficial for the new streetscape. Trees have been positioned as regular intervals to break up potential long lines of car spaces. The organic form of the trees shall reduce the visual impact of the car form. The proposed paved surface of the parking areas shall introduce further texture into the landscape and be visually more stimulating.

The visual effect of proposed parking shall be moderate in the short term and the impact positive in the long term.

13.5.3 Operational Phase - Waste handling areas

Bin storage shall be developed in an organised manner. Communal bin storage shall be in constructed bin stores and shall be located to the rear of apartment and duplex units. The bin storage of an individual house shall be to the rear, wherever possible. On terraced units there shall be a separate communal bin store close to the units that require them.

The visual effect of proposed bin storage within the scheme during operational stage shall be slight in the long term and as the scheme and its landscaping become established.

13.5.4 Operational Phase - Residual Impact

Initially, on completion of the development the introduced shrubs, plants and trees will be at early stages of establishment, the trees shall be semi mature at planting. As time progresses the plants and trees will grow and stabilise in their new environment creating better defined avenues and spaces.

The number and quality of landscape elements shall be an addition to the built environment of adjoining developments providing quality amenity for the residents.

The extensive development of the external spaces shall provide an improvement on the existing landscape, as a planned extension of Clondalkin. The ordered design shall be visually positive and long term. The visual impact on the surrounding landscape shall be moderate in the short term, however with maturity of the trees, hedges and plants it shall be neutral to positive in the long term.

13.5.5 Do nothing Impact

At present the site is grassland; which is not functional, as agricultural activity has ceased for some time. The function of agriculture has ceased due to proximity of the town and surrounding developments.

With the cessation of agricultural activity, the grassland becomes unmanaged and in particular, the hedgerows are falling into disrepair as they are not maintained or pruned. They have extended several metres into the field. The disuse of the hedgerows at the boundary has led to unmanaged lines of trees, willow, whitethorn, and bramble 'Rubus fruticosus' takes over and suppresses new and old tree growth, leading to gaps in the hedgerow.

Therefore, as development continues on all sides of the site, the agricultural function having ceased, being cut off from its' hinterland. The fields with hedgerows are ceasing to function as grassland and as such are fall into disrepair and into waste ground. Visually and functionally the lands become unkempt and are limited in the range of amenity.

If the site remained undeveloped; the site in time shall become waste ground that would have little amenity value. It has been vulnerable to waste cars, stolen vehicles that are burnt out to other anti-social behaviour activities such as fly-tipping of waste and drug dealing.

13.6 Visual Impact Assessment Viewpoints



View location map

Figure 13.3: Location of Receptor Views.

13.6.1 Visual Impacts: Images

We have noted images from various receptor points as per the aerial plan, enclosed in the accompanying landscape receptor views. Please refer to Digital Dimensions photomontages. They have been prepared to illustrate the impacts, if any, with respect to the proposed development.

View	Description
1	Looking South, From Junction of Cherrywood Park & Old Nangor Road
2	Looking South, Gates of Scoil Mochua, Old Nangor Road.
3	Looking East, From Existing Entrance to Park at Cherrywood Crescent
4	Looking North from existing Path in the Park, across Football Pitch (Corkagh)
5	Looking North Corkagh Demesne Garden
6	Looking North, Entrance to Camp Site, access road – alongside N7 – Naas Road.
7	Looking North, at the Roundabout, Interchange of R136 and Naas Road N7
8	Looking North, North East - R136 Road to N7
9	Looking North, North East – opposite to Receptor view 8. Road to Lucan.

10	As per 11.
11.	Looking East – From across R136 Road to view Interface of Kilcarbery with Corkagh Park
12	Looking East from R136 (to Lucan) across the road to the Proposed Entrance at Kilcarbery
13	Looking East, North East from Road outside of Baldonnel Air Base
14	Looking East, South East from roundabout on R134, New Nangor Road, at Entrance to Kilcarbery Business Park
15	Looking South East, across the traffic lights at the interchange of R134 New Nangor Road and R136
16	Looking South, from Housing Development, Castlegrange Square, across the New Nangor Road.
17	Looking South West, From Entrance to Cherrywood Housing Estate on New Nangor Road, R134
18	Internal View, Looking South across the Neighbourhood Centre
19	Internal View, Looking South from Public Building
20	Internal View, Looking West down typical street
21	Internal View, Looking South East across Open Space – Oak Character area
22	Internal View, Looking West down Main Grange Avenue
23	Internal View, Looking East across Open Space – Lime Character area
24	Internal View, Looking North West across Open Space – Sycamore Character area, Biophilic area

Table 13.1: Description of Selected Views

13.6.1.1 Visual Selector Interaction

The 17no. visual receptors have been assessed and presented to the team. Through a process of dialogue. Seven internal receptor views have been also included. They represent the most significant and sensitive location points. RMDA in conjunction with the Architects BKD, Digital Dimensions and the Planning Consultants SLA provided locations for the visual receptors. They were based upon the sensitivity of the locations and typical criteria is listed on Table 13.2 below.

13.6.1.2 Sensitivity

A visual receptor is a human user of the landscape. The practice has adopted the principle that the sensitivity for each type of visual receptor is inherent to the nature of the activity they are undertaking rather than the view itself.

Sensitivity	Typical Criteria for Visual Receptors
High	Users of residential properties, public rights of way, named viewpoints and scenic roads or railways. Users of cultural heritage features including World Heritage Sites, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings and Conservation Areas where they are known to be tourist destinations or places used by local communities.
Medium	Users of public rights of way (urban or industrial areas) play areas, sporting and outdoor active recreational facilities and rural roads.
Low	Users of office and employment areas, industrial areas and the main road and rail network.

Table 13.2: Visual Receptor Sensitivity

External Verified Views – CGI (Views 1 – 17)

View 1	
Existing View	Looking South, From Junction of Cherrywood Park & Old Nangor Road Looking South, From Junction of Cherrywood Park & Old Nangor Road. The site can be seen from the road over the existing hedgerow.
Proposed View	The image shows the visual impact the development shall have on the landscape, shown as a CGI The hedgerow is removed to allow vehicular access.
Impact – Construction Stage	Negative in the short term.
Impact – Operational Stage	Moderate impact – in the short term. Consistent with existing patterns.
Quality of Change	Neutral in the long term
View 2	
Existing View	Looking South, Gates of Scoil Mochua, Old Nangor Road. The site can be seen from the Road over the existing hedgerow..
Proposed View	The image shows the visual impact the development shall have on the landscape, shown as a CGI
Impact – Construction Stage	Negative in the short term.
Impact – Operational Stage	Moderate impact – in the short term
Quality of Change	Neutral in the long term
View 3	
Existing View	Looking West, From Existing Entrance to Corkagh Park at Cherrywood Crescent and PPP site compound to the north.
Proposed View	The image shows the visual impact the development shall have on the landscape, shown as a CGI
Impact – Construction Stage	Negative in the short term.
Impact – Operational Stage	Moderate impact – in the short term
Quality of Change	Neutral in the long term
View 4	
Existing View	Looking North from existing Path in the Park, across Football Pitch
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the an internal Path in Corkagh Park.
Impact – Construction Stage	Negative – Significant Impact
Impact – Operational Stage	Moderate Impact – in the short term.
Quality of Change	Neutral in the long term
View 5	
Existing View	Looking North through Corkagh Demesne Garden
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is indicated as a red line and is screened by buildings and vegetation
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change

View 6	
Existing View	Looking North, Entrance to Camp Site, access road – alongside N7 – Naas Road.
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is indicated as a red line and is screened by existing buildings and vegetation
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change
View 7	
Existing View	Looking North, at the Roundabout, Interchange of R136 and Naas Road N7
Proposed View	The red line denotes the location and outline of the proposed development. The proposed development cannot be seen from the Road due to the existing mature planting, native hedgerows.
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change
View 8	
Existing View	Looking North, North East - R136 Road to N7
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the R136 road to Kingswood N7
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Moderate - Neutral in the long term
View 9	
Existing View	Looking North, North East – opposite to Receptor view 8. Road to Lucan.
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the R136 to Lucan.
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Moderate - Neutral in the long term
View 10	
Existing View	Looking East – From across R136 Road to view Interface of Kilcarbery with Corkagh Park.
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the R136 to Lucan.
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Moderate - Neutral in the long term

View 11	
Existing View	As per View 10.
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the R136 to Lucan.
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Moderate - Neutral in the long term
View 12	
Existing View	Looking East from R136 (to Lucan) across the road to the Proposed Entrance at Kilcarbery
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the R136 Road opposite the proposed main access to the Grange Avenue
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Moderate - Neutral in the long term
View 13	
Existing View	Looking North - R136 Road to N7
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is indicated as a red line and is screened by an old fence and vegetation
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change
View 14	
Existing View	Looking East, South East from roundabout on R134, New Nangor Road, at Entrance to Kilcarbery Business Park
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is indicated as a red line and is predominantly screened by vegetation. Some of the development is visible at the junction of the R136 and R134.
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change
View 15	
Existing View	Looking South East, across the traffic lights at the interchange of R134 New Nangor Road and R136
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the R136 to Lucan.
Impact – Construction Stage	Moderate to Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Moderate - Neutral in the long term

View 16	
Existing View	Looking South, from Housing Development, Castlegrange Square, across the New Nangor Road.
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is indicated as a red line and is screened by landform and existing tree line
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change
View 17	
Existing View	Looking South West, From Entrance to Cherrywood Housing Estate on New Nangor Road, R134
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is indicated as a red line and is screened by housing and vegetation
Impact – Construction Stage	No Impact - Neutral
Impact – Operational Stage	No Impact - Neutral
Quality of Change	No Change

Internal Views – CGI (Views 18 – 24)

View 18	
Existing View	Internal View, Looking South across Town Centre
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the public plaza, town centre. Removal of grass area and reduction in visual space is the dominant impact. However as time elapses the planting and maturity of the development – it shall prove to be a positive visual amenity.
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term
View 19	
Existing View	Internal View, Looking South from Public Building
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the public building west of the town centre/plaza. Removal of grass area and reduction in visual space is the dominant impact. However as time elapses the planting and maturity of the development – it shall prove to be a positive visual amenity as part of planned development to create new residential neighbourhood.
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term

View 20	
Existing View	Internal View, Looking West down typical street, towards R136.
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from a proposed street. The removal of grass area and reduction in visual space is the dominant impact. It becomes an urban environment with associated landscape works, buildings and roads.
Impact – Construction Stage	Significant Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term
View 21	
Existing View	Internal View, Looking South East across Open Space – Oak Character area
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from a proposed street, over an open space(oak) with a retained hedgerow. The hedgerow shall be retained and shall reduce the impact on the development. It is a positive visual impact.
Impact – Construction Stage	Moderate Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term
View 22	
Existing View	Internal View, Looking West down Main Grange Avenue
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from internal main avenue looking towards the R136. It becomes an urban environment with associated landscape works, buildings and roads. The road shall be avenue with semi mature trees and shall be a visually positive impact on completion.
Impact – Construction Stage	Moderate Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term
View 23	
Existing View	Internal View, Looking East across Open Space – Lime Character area
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from a proposed street, over an open space(oak) with a retained hedgerow. The hedgerow shall be retained and shall reduce the impact on the development. It is a positive visual impact
Impact – Construction Stage	Moderate Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term

	View 24
Existing View	Internal View, Looking North West across Open Space – Sycamore Character area, Biophilic area
Proposed View	The image shows the visual impact the development shall have on the landscape. The proposed development site is as a CGI and can be seen from the Road over a proposed Biophilic landscape area. It is proposed to plant this area with pollinator species and provide a new and varied natural habitat in the urban realm
Impact – Construction Stage	Moderate Impact
Impact – Operational Stage	Moderate – short term - Neutral long term
Quality of Change	Positive in the long term

13.7 Mitigation of Visual Impacts

13.7.1 Remedial and Reductive Visual Measures

During construction, the existing hedges and trees that are being retained shall be fenced off, so that they are protected during construction. An Environmental Management Programme of good husbandry will be undertaken to ensure environmental protection and that there is no debris, pollutants or otherwise that would damage the landscape.

An arborist has been employed to survey the existing trees and hedgerows and may be employed to review operational works and prepare a final report on the status of the retained trees and hedgerows.

The landscaping proposals for this scheme shall be developed to form an integral part of the development. There are a number of measures that shall reduce the impact of this proposed development, extensive planting, retention of existing hedgerows and trees, development of pathways, seating areas and textured road & path surfaces

In the operational stage, the site will have established a landscape that shall be integrated around the houses. The planting will have matured and the amenity open spaces will be actively used by the residents and therefore having a positive visual impact on the landscape. The Green belt function of Corkagh Park to the south and open lands of Grange golf club to the west beyond the R136 (lands to the north and east are otherwise built up rather than green belt) – the proposed development, including the biophilic landscape strategy, would have the effect of enhancing biodiversity and providing green links accessible and of benefit to the wider community.

The Buildings shall be screened by planting, trees and hedges. The landscaping shall reduce the visual impact of straight lines and hard surfaces, with extensive tree and shrub planting. There shall be a defensive planted buffer to the proposed housing and apartments, the landscaping of the gardens surrounding the buildings shall soften hard edges.

Although some of the existing hedgerows internally shall be removed due to the layout, it is proposed to retain many of the existing mature trees and shrubs in the open spaces. This coupled with an extensive landscape programme, shall create the best landscape solution within this environment. The impact of the building shall be reduced through retention and planting of mature trees, shrubs and careful use of hard landscape material, both hard and soft.

The car spaces and paths to the front of the house shall be surfaced with high quality materials – increasing the texture in the environment – a further positive visual improvement. The organisation of the hard landscape elements with soft landscape shall provide an ordered and sustainable new landscape. The increased number and range of species of plant shall be an improvement on the existing plant species currently in Kilcarbery, in terms of variety and in number. They shall replace the monoculture of grass and the increased range of pollinator species shall benefit the existing habitats

13.8 Monitoring

A Landscape Architect & Arborist shall be appointed to oversee and monitor the project at construction & operational stage. They shall liaise with other project members in relation to any existing and proposed trees.

The landscape architect shall overview all hard & soft landscape works. Initially, the protective fence shall be installed under the guidance & supervision of the Arborist, if required. As works continue the Arborist shall make visits to review the condition of any tree & hedgerow that are to be retained and liaise with resident engineer, project team and contractor. The landscape architect shall also inspect the trees; however, most of the monitoring works shall be during and post-civil construction stage. The landscape architect shall review and instruct on details of soft planting, trees, shrubs and of paving materials, walls & railings.

During the operational stage, the landscape Architect & Arborist shall review the state of any retained trees, The landscape architect shall review for period of 18 months, from practical completion of each stage the standard and quality of the materials and workmanship. A final certificate of completion shall be issued by the landscape architect in respect of this.

13.9 Executive Summary

13.9.1 Cumulative impacts

Cumulative Impacts are impacts that result from incremental changes caused by other past, present or reasonably foreseeable developments together with the proposed development

- a) Likely;
- b) Significant; and
- c) Relating to an event which has either occurred or is reasonably foreseeable together with the impacts from this development.

In assessing Cumulative Impacts the following the principal source consulted: -

South County Dublin Council Development Plan

In accordance with Schedule 6, Part 2(c) of the Planning and Development Regulations 2001, this Section has considered the cumulative impact of the proposed development. This relates to the cumulative impact on the subject site itself and on surrounding sites. The European Commission's report of May 1999 'Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions' defines cumulative impact as follows: -

"Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project".

With regard to the cumulative impact of proposed development on landscape and visual amenity, the future development will take place on a brownfield site that were formerly agricultural lands that no longer provide that function. They now comprise undeveloped infill lands within the expanded area of the Clondalkin settlement and will form part of the comprehensive redevelopment and rejuvenation of the existing housing at Kilcarbery. In this regard, the cumulative impact of the overall development is expected to be moderately positive, from a landscape and visual perspective.

It is considered that there will be short to medium term moderate negative impacts associated with the construction phase of the project over all phases of development. Subsequent construction phases are likely to occur sequentially after the completion of the first Phase.

It is considered that there will be a long term positive visual impact as a result of the proposed development, due to the modern residential facilities being provided, the improved visual amenity and outlook from the surrounding area, creation of an integrated streetscape and attractive, useable public realm, and the provision of commercial, retail and community floorspace to serve the needs of the local community.

Core to the design development of Kilcarbery was the concept of Biophilic Design, i.e. our built environment is critical to human health. Productivity, along with human emotional, intellectual and spiritual wellbeing is based on the ability to access nature in all its forms.

Buildings and landscape can support human health or they can be detrimental. The emphasis of our development therefore is to construct a built environment which will improve human health & wellbeing, and hence present Kilcarbery as a nice location to reside in.

The most significant impact on the local area in recent periods was the development of the R136, in 2006. The R136 road is a regional road in Ireland, and was named the Outer Ring Road. The route, is dual carriageway, runs from the N4 at Lucan to the N81 at Tallaght, bypassing west of Clondalkin (around Grange Castle and Kilcarbery) and crossing the N7 near Citywest. It was built as part of the planning for the new town of Adamstown. This road has made accessible the lands at Kilcarbery and has contributed to the development of Grange Castle, Profile Park and the Golf course. Visually significant, it shall serve the wider population of west Clondalkin Kilcarbery.

As the road is a regional road, it has the capacity to serve future development, but this shall be further away from the Kilcarbery development site. As Kilcarbery is surrounded by development the visual impact from future developments will be limited if at all due to the distance, current emerging trends and existing development.

The housing developments Of Oldcastle Park and St Johns Wood shall provide a visual interaction with existing residential developments. The proposed new housing at Kilcarbery shall tie in with these existing developments and shall provide a positive impact to the development in the immediate area.

The Grange golf club and Corkagh Park are positive interactions and impacts upon Kilcarbery and provide a valuable visual and recreational amenity for the area. The proposed interaction between the proposal in the form of paths is a positive impact and shall provide a resource for the expanding population.

Grange Castle and Profile park are business parks that have been developed in the locality to provide employment for the local population. They are well serviced and are landscaped to a high degree providing an ordered and organised public realm. The future impact of these business parks shall be dependent on economic conditions. The proposed Kilcarbery development shall provide a positive interaction with the business parks and the ordered development of the housing shall have a positive long term visual impact and effect. Potential to enhance sustainable green links to surrounding employment and housing areas through the site is a positive long term effect and impact.

13.10 Interactions

Inter-relationships are the interaction / Interrelations between the impacts and proposed mitigation or one discipline with another associated discipline.

13.10.1 Traffic

Traffic in the proposed development will have landscape and visual effects on properties in proximity to the proposed development. These effects were taken into account during design development of the Proposal. Mitigation measures have been proposed, in the form of landscape planting, street trees, width of new streets and roads. The organised planting of street trees along roads and parking spaces, all provide a new environment and sense of place. The new traffic from the existing R136 and Old Nangor road through the development provides the opportunity to propose an organised and varied design that shall provide a positive landscape and visual impact along the proposed roads and streets. This shall reduce the visual impact of Traffic.

13.10.2 Soils & Geology

The construction of the proposed development will involve excavation of existing soils, primarily soft in nature, with spoil material being placed in material deposition areas within the landtake. The development of the proposal, both horizontal and vertical, takes account of landscape and visual impacts on residential properties.

13.10.3 Hydrogeology

As a result of the redistribution of traffic, there is a risk to water quality through pollution and spillage accident risk. The construction phase of the project has the potential to impact on groundwater and habitats. Mitigation measures have been put in place to avoid and/or minimise these effects. During the operational stage, sealed drainage systems will be used and stormwater drainage will be suitably treated prior to discharge. The SUDS (Sustainable Urban Drainage System) proposed will be a significant improvement over the traditional drainage regimes and with the distribution of the traffic onto the new roads is likely to result in an improvement during the operation stage for hydrogeology. The SUDS proposed aim to utilise a two-step intervention of surface water, cleaning and temporary storage, prior to release to the system.

13.10.4 Archaeology Architecture Cultural Heritage

The development of the proposed development both including and following the selection of the preferred design has given due consideration to the existing habitats and development of the area. The development took account of the impact on the archaeological, architectural and cultural heritage impacts. Most particularly on Corkagh Park

During the construction phase, there is the potential to excavate previously unrecorded archaeological and cultural heritage artefacts. As a result, pre-construction surveys are proposed to be carried out to identify and resolve any previously undiscovered sites of archaeological potential prior to the main works commencing. The development of Kilcarbery also took account of Archaeological Heritage and Cultural Heritage and Architectural Heritage impacts, as outlined in Chapter 16.



Figure 13.4: Image inside Corkagh Demesne House and Yard. Image shows Proposed Kilcarbery Housing as red Line.

13.10.5 Material Assets & Land – Property

Landscape & visual effects may impact on residential properties located near the proposed development. Likely landscape and visual effects will be most pronounced during the construction and initial operation stages causing initial visual impacts, after which landscape mitigation measures will be increasingly effective in integrating the proposed development within the landscape and in reducing landscape and visual impacts on properties.

13.10.6 Biodiversity

The scheme has been developed to minimise the removal of existing hedgerows and trees in Kilcarbery. Open spaces have been selected to retain the Trees and hedgerows. However some parts of hedgerows and scrub vegetation will be removed in the construction – generally for access roads. This shall have a negative effect on landscape quality visual amenity and biodiversity. Landscape mitigation proposals have been developed to be complementary with the ecological requirements. These include planting of native, naturalised and indigenous species to augment existing hedgerows. The hierarchy of street tree planting shall help in reconnecting ecological networks resulting in a positive effect on biodiversity and a positive long term impact for Kilcarbery.

13.10.7 Population & Human Health

Negative temporary visual impacts will arise for residents located close to or adjoining the construction boundary. A construction Management plan shall be drawn prior to construction and implemented. Specific mitigation measures include the provision of hoarding around construction compounds during the construction phase for properties particularly impacted by the works.

During the Operational phase, landscape & visual impacts will arise from the built physical presence of the roads and streets. Mitigation measures will include general measures such as retention of existing hedgerows and trees, the augmentation of existing hedgerows established throughout the development. Planting a range of trees and species. Landscape and visual mitigation measures have been utilised in the design of the proposed development to reduce impacts on property.

The impacts of the new development shall be offset by the further potential to enhance sustainable green links through the site and to surrounding employment and housing areas. The engagement with the natural landscape environment and renewed habitat areas are beneficial to the health and wellbeing of the local population. The facilitating of sustainable alternative transportation is positive for human health and aids in the forming of a sense of place in Kilcarbery.

13.11 Difficulties Encountered

Kilcarbery is an open site with easy access to the hedgerows and to the grassland. There were no difficulties encountered on visiting the development area.

13.12 Conclusion

The visual impact of the development shall be negative at first, due to the reduction in open space and the removal of the some of the hedgerows. However as Kilcarbery provides more accommodation for future residents, the well-designed layout which is sympathetic to the surrounding landscape and emerging settlement trends, shall become a positive visual impact.

The increase and coherent design of external spaces, shall replace the existing field systems. Direct access to Corkagh Park to the south, utilising the existing hedge line shall provide a positive visual amenity.

The retention of the existing native hedgerows internally in the open space providing habitat runs along with the proposed planting shall tie the proposed houses with the natural landscape and provide a connection with nature which shall be a positive long term visual impact.

Although the character of the environment shall change, it is in line with emerging patterns of development in Kilcarbery and Clondalkin. The proposal is however sympathetic to the surrounding landscape and shall present a positive visual impact in the long term. The increased tree cover shall also enhance and increase the biodiversity of the existing landscape and tie it in with the existing hedgerows and trees.

The duration of construction shall have a negative visual impact in the short term but as development increases in Kilcarbery, the emerging and existing trends shall view this development as positive in the long term, as the proposal is well designed and sympathetic to the natural landscape.

The proposed development retains elements of the existing rural character, hedgerows and trees ensuring a level of continuity / connectivity with the landscape. This enables a creation of local identity as it enshrines the retention of the main internal hedgerows, provides valuable amenity space and interacts with the historic Corkagh demesne. The proposed connections create important pedestrian links to the open space, habitat areas of the original fields and to Corkagh Park.

The proposed development shall influence the surrounding land use, providing organised open space and a new urban environment that is sympathetic to the natural environment. This development shall be a large residential development to the existing urban fabric of Townlands of Kilcarbery, Corkagh Demesne, Deansrath and Nangor, and in the long term have a positive impact upon the landscape and its usage.

The development shall provide a coherent ordering of buildings and external spaces and present a positive visual impact upon the existing development and shall not detract from the local landscape.

Therefore the visual impact upon the nature of the landscape shall be moderate in the short term, with slight effects in the medium term. The overall proposed housing in the interaction with the surrounding developments shall result in neutral visual impact to the medium term. As a new town emerges with associated landscape development, it shall form a positive visual impact in the long term.