

HOLLYSTOWN SITES 2 & 3 AND KILMARTIN LOCAL CENTRE SHD

ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) VOLUME 1: NON-TECHNICAL SUMMARY (NTS)

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Environmental
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Client:

Glenveagh Homes Ltd.

Date:

14 December 2021

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1 Introduction

An Environmental Impact Assessment Report has been prepared in respect of the proposed Strategic Housing Development (SHD) at Hollystown and Kilmartin, Dublin 15 (the ‘proposed development’ hereafter), in accordance with the provisions of the Planning and Development Act 2000 – 2021 and the Planning and Development Regulations 2001 – 2021. The Environmental Impact Assessment Report provides a statement of the effects that a proposed development, if carried out, would have on the environment.

This document is a non-technical summary (NTS) of the Environmental Impact Assessment Report, prepared to facilitate the dissemination of the information presented in the Environmental Impact Assessment Report to the general public. It shall endeavour, insofar as possible, to present a condensed summary of the Environmental Impact Assessment Report, using non-technical terms, but without omitting or understating any environmental effects of note.

1.1 The Proposed Development

The proposed development relates to a site of c. 25.3 ha at the townlands of Hollystown, Kilmartin, Hollywoodrath, Cruiserath, Yellow Walls, Powerstown, and Tyrrelstown, Dublin 15, which includes lands in the former Hollystown Golf Course and lands identified under the Kilmartin Local Area Plan (2013; as extended). The lands are bound by the R121 and Hollywoodrath residential development to the east, the under construction Bellingsmore residential development to the south and north, the former Hollystown Golf Course to the north, Tyrrelstown Educate Together National School, St. Luke’s National School and Tyrrelstown Community Centre to the west and south and the existing Tyrrelstown Local Centre to the south.

The proposed development will provide for the development of 548 no. residential units, consisting of 147 apartments/duplexes and 401 houses, ranging in height from 2 to 5 storeys and including retail/café unit, 2 no. crèches, 1 no. Montessori, 1 no. community hub, car and bicycle parking, open space, public realm and site infrastructure over a site area of c. 25.3 ha.

The site of the proposed development is comprised of two principal elements: the Hollystown Sites 2 & 3 area and the Kilmartin Local Centre area; plus foul sewer outfalls extending from these areas to the west, and a proposed pedestrian and cyclist link extending to the north of the Hollystown Sites 2 & 3 areas (**Figure 1.2**). In the Hollystown Sites 2 & 3 area, the proposed development provides for 428 units consisting of 401 no. 2 and 3 storey houses and 27 no. apartments set out in 9 no. 3-storey blocks. In the Kilmartin Local Centre area, the proposed development provides for 120 no. apartment/duplex units in 4 no. blocks ranging in height from 3 to 5 storeys. The local centre includes 2 no. crèches (including 1 standalone 2 storey crèche), 1 no. Montessori, a retail/café unit, and 1 no. community hub.

The Applicant is Glenveagh Homes Limited.

Hollystown Sites 2 & 3 and Kilmartin Local Centre SHD

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Figure 1.1: Location of the proposed development (© Bing Maps, 2021)



Hollystown Sites 2 & 3 and Kilmartin Local Centre SHD

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Figure 1.2: Site of the proposed development (© Bing Maps, 2021)



1.2 Format & Structure of the Environmental Impact Assessment Report

The Environmental Impact Assessment Report is presented in three separate volumes, as summarised in **Table 1.1**.

Table 1.1 Structure of the Environmental Impact Assessment Report

Section	Description
Volume 1: Non-technical Summary	
A summary of the Environmental Impact Assessment Report in non-technical language	
Volume 2: Main Report	
Chapter 1	Introduction
Chapter 2	The Environmental Impact Assessment Process
Chapter 3	Planning & Development Context
Chapter 4	Consideration of Alternatives
Chapter 5	Description of the Proposed Development
Chapter 6	Consultation
Chapter 7	Population & Human Health
Chapter 8	Biodiversity
Chapter 9	Land, Soils, Geology & Hydrogeology
Chapter 10	Hydrology
Chapter 11	Air Quality & Climate
Chapter 12	Noise & Vibration
Chapter 13	Landscape & Visual
Chapter 14	Cultural Heritage, Archaeology & Architectural Heritage
Chapter 15	Microclimate – Daylight & Sunlight
Chapter 16	Traffic & Transportation
Chapter 17	Material Assets – Waste
Chapter 18	Material Assets – Services
Chapter 19	Interactions
Chapter 20	Cumulative Impacts
Chapter 21	Mitigation Measures & Monitoring
Volume 3: Appendices	
Reference material of relevance to the various chapters of the Environmental Impact Assessment Report	

1.3 The Environmental Impact Assessment Team

Brady Shipman Martin (BSM) are the planning consultant and Environmental Impact Assessment co-ordinator for the proposed development. The Environmental Impact Assessment Report was prepared by BSM, with input from the project design team and various environmental specialists, as listed in **Table 1.2**, below.

Table 1.2 Environmental Impact Assessment Report contributors

Name & company	Role / input	Qualifications & experience
Pauline Byrne BSM	Project Manager	BSc Mgmt., Adv. Dip. Marketing, MA Regional & Urban Planning <ul style="list-style-type: none"> Head of Planning Member of Royal Town Planning Institute (MRTPI) Member of Irish Planning Institute (MIPI) Over 20 years of experience
Sorcha Turnbull BSM	Planner	BSc Spatial Planning, Dip. EIA Mgmt. <ul style="list-style-type: none"> Senior Planner Corporate Member of the Irish Planning Institute (IPI) & Associate Member of the Royal Town Planning Institute (RTPI) Over 10 years of experience
Thomas Burns BSM	EIAR technical review	B.Agr.Sc. (Land.) Dip. EIA Mgmt., Adv. Dip. Plan. & Env. Law <ul style="list-style-type: none"> Environmental Planner and Landscape Architect Member of Irish Landscape Institute & Irish Environmental Law Association Over 30 years of experience in EIA and LVIA
Lorraine Guerin BSM	EIAR Coordinator; Background chapters; Population & Human Health; Material Assets – Services;	BSc Ecology, MSc Env. Mgmt. & Policy <ul style="list-style-type: none"> Environmental Consultant Over two years of experience
Matthew Hague BSM	Biodiversity	BSc, MSc, Adv. Dip. Plan. & Env. Law <ul style="list-style-type: none"> Ecologist Chartered Environmentalist – CEnv MCIEEM Over 18 years of experience
Paul Conaghan AWN	Land, Soils, Geology & Hydrogeology; Hydrology	BSc, MSc <ul style="list-style-type: none"> Environmental Consultant Member of the International Association of Hydrogeologists Over 9 years of experience

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Name & company	Role / input	Qualifications & experience
Marcelo Allende AWN	Land, Soils, Geology & Hydrogeology; Hydrology	BSc, BEng <ul style="list-style-type: none"> ■ Environmental (Water Resources) Consultant ■ Member of IAH (Irish Group) ■ Member of Engineers Ireland ■ Over 15 years of experience
Ian Byrne Byrne Environmental	Air Quality & Climate; Material Assets – Waste	BSc, MSc Env. Protection, PgDip Env. & Planning Law <ul style="list-style-type: none"> ■ Principal Environmental Consultant ■ Member of the Institute of Acoustics ■ Over 25 years of experience
Aoife Kelly AWN	Noise & Vibration	BSc (Hons), PgDip, PhD. <ul style="list-style-type: none"> ■ Senior Acoustic Consultant ■ Member of Institute of Acoustics (MIOA) ■ Eight years of experience
Alex Craven BSM	Landscape & Visual	BSc, MLA <ul style="list-style-type: none"> ■ Landscape Architect ■ LVIA specialist ■ Nine years of experience
Faith Bailey IAC	Cultural Heritage, Archaeology & Architectural Heritage	BA, MA <ul style="list-style-type: none"> ■ Associate Director, Senior Archaeologist and Cultural Heritage Consultant ■ MCIFA ■ Over 13 years of experience
David Walshe IN2	Microclimate – Daylight & Sunlight	BSc (Eng) <ul style="list-style-type: none"> ■ Environmental and Sustainability Director ■ Specialising in building simulation, and daylight and sunlight analysis ■ Chartered Engineer – CEng ■ Member Engineers Ireland ■ 27 years of experience

Hollystown Sites 2 & 3 and Kilmartin Local Centre SHD

Environmental Impact Assessment Report (EIAR) Volume 1: Non-technical Summary (NTS)

Name & company	Role / input	Qualifications & experience
Aimee Dunne DBFL	Traffic & Transportation	BEngTech, MEng <ul style="list-style-type: none">■ Chartered Engineer – CEng■ Member of Engineers Ireland (MIEI)■ Member of the Institute of Highway Engineers (MIHE)■ Specialist in transport planning and design, and highway engineering■ Over 10 years of experience

2 The Environmental Impact Assessment Process

2.1 Overview

Environmental Impact Assessment (EIA) is a process involving a systematic analysis and assessment of the potential effects of a proposed development on the receiving environment. The requirement for Environmental Impact Assessment in the European Union stems from the EIA Directive, which aims to provide a high level of protection to the environment and human health. It requires that projects likely to have *significant effects* on the environment are subject to Environmental Impact Assessment, as part of the development consent process.

The Environmental Impact Assessment Report is the principal document upon which the Environmental Impact Assessment is based. It provides a statement of the effects that a proposed development, if carried out, would have on the environment.

Where required, the Environmental Impact Assessment Report is prepared by a Developer / Applicant for the purposes of a planning application for a proposed development. As part of the planning application, it is submitted to the planning authority (An Bord Pleanála, in this case), who uses the information provided therein to complete the Environmental Impact Assessment. The assessment, in the context of other considerations, informs the decision to grant or refuse planning permission.

2.2 Requirement for Environmental Impact Assessment

Parts 1 and 2 of Schedule 5 of the Planning and Development Regulations 2001 list the classes of development for which Environmental Impact Assessment is required by default. In Part 1, major project classes (including major industrial, infrastructural and agricultural projects) are identified for the purposes of mandatory Environmental Impact Assessment. In Part 2, specific thresholds are cited. Environmental Impact Assessment is a requirement for projects of a class listed here that also meet or exceed the corresponding threshold.

The proposed development is not of a class listed in Part 1. The proposed development does, however, correspond with the classes of development set out under subsections 10(b)(i) and 10(b)(iv) of Part 2 of Schedule 5, and exceeds the associated thresholds, as detailed in **Table 2.1**.

Table 2.1 Statutory requirement for Environmental Impact Assessment

Provision	Applicability to proposed development
Schedule 5, Part 2, subsection 10(b)(i): <i>"Construction of more than 500 dwelling units"</i>	548 units proposed
Schedule 5, Part 2, subsection 10(b)(iv): <i>"Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built up area and 20 hectares elsewhere"</i>	Gross site area of 25.3 hectares

Therefore, under the provisions of the Planning and Development Regulations 2001, Environmental Impact Assessment is a statutory requirement for the proposed development, and the Applicant is required to prepare an Environmental Impact Assessment Report for submission with the planning application.

2.3 Impact Assessment Methodology

The preparation of the Environmental Impact Assessment Report has been carried out with regard to the following legislative instruments and guidance documents, among others:

- Department of Housing, Planning and Local Government (2018). *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*.
- Department of Housing, Planning and Local Government (2017). *Circular letter PL 1/2017 - Advice on Administrative Provisions in Advance of Transposition*.
- Directive 2014/52/EC amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.
- Environmental Protection Agency (2015). *Draft Advice Notes on Current Practice in the Preparation of Environmental Impact Statements*.
- Environmental Protection Agency (2017). *Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*.
- European Commission (1999). *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions*.
- European Commission (2013). *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment*.
- European Commission (2017a). *Environmental Impact Assessment of Projects. Guidance on Scoping*.
- European Commission (2017b). *Environmental Impact Assessment of Projects. Guidance on the preparation of Environmental Impact Assessment Report*.
- Planning and Development Act 2000, as amended.
- Planning and Development Regulations 2001, as amended.

In addition to the above-listed, legislation and guidance documents relating to topic-specific environmental assessments have been considered in the preparation of each specialist chapter, as detailed in the respective chapters.

Unless otherwise stated, environmental effects and impacts are characterised using the criteria set out in the Environmental Protection Agency's 2017 *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Draft)* (Table 2.2).

Table 2.2 Criteria for effect / impact characterisation (Environmental Protection Agency, 2017)

Criteria	Definition
Quality	
Positive	A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative / Adverse	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
Significance	
Imperceptible	An effect capable of measurement but without significant consequences.
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.

Criteria	Definition
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant	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 most of a sensitive aspect of the environment.
Profound	An effect which obliterates sensitive characteristics.
Extent & Context	
Extent	Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Probability	
Likely	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Unlikely	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Duration	
Momentary	Effects lasting from seconds to minutes.
Brief	Effects lasting less than a day.
Temporary	Effects lasting less than a year.
Short-term	Effects lasting one to seven years.
Medium-term	Effects lasting seven to fifteen years.
Long-term	Effects lasting fifteen to sixty years.
Permanent	Effects lasting over sixty years.
Reversible	Effects that can be undone, for example through remediation or restoration.
Frequency	
Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)	
Type	
Indirect / Secondary	Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway
Cumulative	The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
Do-Nothing	The environment as it would be in the future should the subject project not be carried out
Worst-case	The effects arising from a project in the case where mitigation measures substantially fail.

Criteria	Definition
Indeterminable	When the full consequences of a change in the environment cannot be described.
Irreversible	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
Residual	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
Synergistic	Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).

2.4 Appropriate Assessment

European sites, also known as the Natura 2000 network, includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). These are a network of sites designated for nature conservation under the EU Directive (92/43/EEC) of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and Directive (2009/147/EC) of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the Birds Directive), respectively.

The requirements for Appropriate Assessment (AA) are set out under Article 6 of the Habitats Directive, transposed into Irish law by the European Union (Birds and Natural Habitats) Regulations 2011-20151 (the Birds and Natural Habitats Regulations) and the Planning and Development Act, 2000-2021 (the Planning Acts).

An AA Screening Report has been prepared in respect of the proposed Project. It has concluded that:

“... the proposed development at Hollystown Sites 2 & 3 and Kilmartin Local Centre, individually or in combination with another plan or project, will not have a significant effect on any European sites.”¹

¹ Emphasis added

3 Planning & Development Context

This Chapter of the Environmental Impact Assessment Report presents a review of the planning and development policy context at a national, regional and local level. The following policy documents of relevance have been discussed in relation to the proposed development in the main text of the Environmental Impact Assessment Report (Volume 2):

International

- *United Nations Sustainable Development Goals* (2015)

National

- *Project Ireland 2040 – National Planning Framework and National Development Plan* (2018)
- *Sustainable Urban Housing: Design Standards for New Apartments* (2020)
- *Urban Development and Building Heights – Guidelines for Planning Authorities* (2018)
- *Design Manual for Urban Roads and Streets* (2013)
- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (2009)
- *Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas* (2009)
- *Urban Design Manual – A Best Practice Guide* (2009)
- *The Planning System and Flood Risk Management – Guidelines for Planning Authorities* (2009)
- *Childcare Facilities – Guidelines for Planning Authorities* (2001)
- *Housing for All – A New Housing Plan for Ireland* (2021)
- *Rebuilding Ireland – Action Plan for Housing and Homelessness* (2016)
- *National Cycle Manual* (2011)
- *Smarter Travel – A Sustainable Transport Future 2009 – 2020*

Regional

- *Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019 – 2031*
- *Fingal Development Plan 2017 – 2023*

Local

- *Kilmartin Local Area Plan* (2013; extended)

3.1 National Level

Project Ireland 2040 is the Government's overarching planning and development policy for the country to 2040. It constitutes a "*strategy to make Ireland a better country for all of its people*" by setting public investment policy at a high level. It is comprised of two documents: the National Planning Framework (NPF), which details the strategy for development to 2040; and the National Development Plan (NDP), which outlines the public expenditure required to implement this strategy and identifies priority future projects.

In order to meet the needs of Ireland's growing population, the NPF requires delivery of a baseline of 25,000 homes annually to 2020, followed by a likely level of 30 – 35,000 annually up to 2027. The NPF aims to promote a departure from previous patterns of sprawl, instead delivering 'compact growth', with 40% of future housing to be delivered within and close to the existing footprint of built-up areas.

The proposed development is broadly consistent with the objectives of the NPF in that it will deliver a high-quality residential development within the Dublin Metropolitan area, in an emerging residential area. While the proposed development will be delivered on a greenfield site at the margin of an existing

settlement (as opposed to in-fill / brownfield development), it is situated on lands that have been earmarked by the Local Authority (Fingal County Council) for residential development of this nature. It is also noted that the NPF allows for 60% of new housing to be situated in smaller towns, villages and rural area, including the countryside, *“but at an appropriate scale that does not detract from the capacity of our larger towns and cities to deliver homes more sustainably”* (p. 92).

It will provide a mix of units in terms of tenure and housing typology, at a density and massing that are consistent with the existing development pattern at Hollystown, Kilmartin and Tyrrelstown. It will also provide new commercial and community amenities to meet the needs of existing and future residents in the area, including two crèches, a café, community hub and Montessori school.

3.2 Regional Level

Under national policy, Regional Assemblies are tasked with drafting Regional Spatial and Economic Strategies (RSEs), which effectively set the agenda for implementing the national level development policy – the NPF – at the regional level. The proposed development is situated in the Eastern and Midland Region, which takes in Counties Longford, Westmeath, Offaly, Laois, Louth, Meath, Kildare, Wicklow and Dublin. The Region is the smallest in terms of land area but the largest in population size and is identified as the *“economic engine of the state”* as it contains the capital city (p. 14).

The Eastern and Midland RSE sets out an overarching vision for the Region: *“To create a sustainable and competitive Region that supports the health and wellbeing of our people and places, from urban to rural, with access to quality housing, travel and employment opportunities for all”* (p. 23).

In accordance with the requirements of the NPF, the RSE also contains a Metropolitan Area Strategic Plan (MASP) for the Dublin Metropolitan Area, the vision statement for which is to *“build on our strengths to become a smart, climate resilient and global city region, expanding access to social and economic opportunities and improved housing choice, travel options and quality of life for people who live, work, study in or visit the metropolitan area”* (p. 100).

The MASP identifies several ‘strategic development corridors’ – high capacity transport corridors which have the potential to support the development of sustainable residential communities:

- City Centre within the M50 (Multi modal)
- North-South Corridor (DART expansion)
- North-West Corridor (Maynooth/Dunboyne line and DART expansion)
- South-West Corridor (Kildare line, DART expansion and Luas red line)
- Metrolink-LUAS Corridor (Metrolink, LUAS green line upgrades)

The location of the proposed development does not appear to fall within any of the above-listed strategic development corridors, falling somewhere between the North-West Corridor and the Metrolink-LUAS Corridor, and there is no explicit reference to the development lands in the RSEs. However, the proposed development will contribute to the achievement of the population growth targets in the RSEs, by providing a high-quality new residential development on lands zoned for this purposes by the Local Authority (Fingal County Council).

3.3 Local Level

3.3.1 Fingal Development Plan 2017 – 2023

The Site is located within the administrative area of Fingal County Council (FCC) and subject to the *Fingal Development Plan 2017 – 2023* ('the Development Plan') (including subsequent variations). In 2020, the Council adopted Variation No. 2 to align the Development Plan with the policies and objectives of the NPF and the RSES.

The Development Plan sets out the Council's policies and objectives for the development of its administrative area to 2023. It seeks to develop and improve the social, economic, environmental and cultural assets of the area, in a manner that is sustainable and consistent with the national level policies.

The emphasis of the Development Plan is to continue to consolidate the existing zoned lands and to maximise the efficient use of existing and proposed infrastructure. In this way the Council can ensure an integrated land use and transport strategy in line with national and regional policy. This is reflected in Objective SS01 to *"Consolidate the vast majority of the County's future growth into the strong and dynamic urban centres of the Metropolitan Area while directing development in the hinterland to towns and villages, as advocated by national and regional planning guidance"* (p. 40).

The location of the proposed development is an emerging peri-urban residential area to the north of Blanchardstown, and falls within the development boundary for the wider Blanchardstown area, which is identified as a 'primary growth centre' for the Local Authority area.

The stated development strategy for Tyrrelstown is as follows:

"Enhance and improve this centre by encouraging suitable retail, commercial and residential uses alongside new school and associated recreational developments. Future development of this area whether of a local centre, open space or residential land use nature needs to respect existing development within the area and be carried out in a sustainable manner to provide a high quality living environment for the existing and future population." (p. 110)

The stated development strategy for Hollystown is as follows:

"Ensure the future development of this area respects existing development within the area and is carried out in a sustainable manner to provide a high quality living environment for the existing and future population." (p. 111).

The Development Plan provides the land use zoning for the site of the proposed development, which may be summarised as follows:

- The northern portion of the proposed development site is predominantly zoned as 'RA – Residential Area', for which the corresponding objective is to *"Provide for new residential communities subject to the provision of the necessary social and physical infrastructure"*.
- The southern portion of the proposed development site is predominantly zoned as 'LC – Local Centre', for which the corresponding objective is to *"Protect, provide for and/or improve local centre facilities"*.
- The northern (link) portion of the site also extends into lands zoned 'OS – Open Space', for which the corresponding objective is to *"Preserve and provide for open space and recreational amenities"*.
- The proposed foul water outfall portion of the site extends into lands zoned 'RA – Residential Area' and 'RU – Rural', for which the corresponding objective is to *"Protect and promote in a balanced"*

way, the development of agriculture and rural-related enterprise, biodiversity, the rural landscape, and the built and cultural heritage”.

The proposed development is consistent with the objectives of the Development Plan. However, there are several material contraventions of the Development Plan, in relation to a site-specific objective (Local Objective 72) and parking provision. For details of these material contraventions, refer to the Material Contravention Statement, prepared by BSM and submitted under separate cover as part of the planning application.

3.3.2 Kilmartin Local Centre (2013; as extended)

The *Kilmartin Local Area Plan* (‘the LAP’) was adopted by Fingal County Council in 2013. It provides a development strategy for the 78.51 hectare Kilmartin development lands, as designated in the *Fingal Development Plan 2011 – 2017*. As stated in the LAP, the development lands in question are “*at the north-western development boundary of Blanchardstown*” (p. 1). The LAP applies to the Hollystown Site 3 and Kilmartin Local Centre portions of the site of the proposed development.

The stated vision for the LAP lands is as follows (p. 1):

- *“To create a sustainable place to live, work and play encompassing a cohesive and diverse community with a strong identity.”*
- *“To contribute to the economic growth of the County through the development of a vibrant economic community centred on the local centre.”*

The stated purpose of the LAP is as follows (ibid.):

- *“Creation of a single community in the northern part of Blanchardstown, integrating with the existing community at Tyrrelstown.”*
- *“Provision of residential development in a phased and integrated manner, with a supporting level of mixed uses to serve the needs of the community in an extended local centre.”*
- *“Creation of a permeable and legible movement network for all modes of transport linking the lands internally and externally with the Greater Blanchardstown Area.”*
- *“Provision of a high quality recreational open space and amenity facilities to meet active and passive recreational needs of the expanding population.”*
- *“Provision of community and health care facilities, in particular, schools.”*
- *“Protection, integration and enhancement of existing environmental features within the lands and in the park located directly south.”*
- *“Delivery of a high quality urban design to ensure that the area has its own unique character and identity and is a desirable place to live, work and recreate.”*

The LAP sets out development objectives for the lands in relation to landscape; archaeological and architectural heritage; biodiversity; parks, open space and recreation; water management and water quality; movement and transportation; density and housing mix; building heights; waste; community infrastructure; airport safety and noise; climate change; and design; among other topics.

The proposed development is consistent with the objectives of the LAP. It will create a high-quality, permeable residential development, integrated into neighbouring developments and contributing to

the consolidation of an emerging residential community at Tyrrelstown / Kilmartin / Hollystown. In accordance with the LAP, it will provide new community and recreational open space facilities to meet the needs of existing and future residents, including two crèches, a café, community hub and Montessori school.

While the proposed development is consistent with the objectives of the Local Area Plan. However, there are several material contraventions in relation to building height, residential density and unit mix parameters. For details of these material contraventions, refer to the Material Contravention Statement, prepared by BSM and submitted under separate cover as part of the planning application.

4 Consideration of Alternatives

In accordance with Part 1(d) of Schedule 6 of the Planning and Development Regulations 2001, this Chapter of the Environmental Impact Assessment Report provides a “A description of the reasonable alternatives studied by the person or persons who prepared the [Environmental Impact Assessment Report], which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment”. As per the Environmental Protection Agency’s 2017 *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Draft)*, the alternatives are discussed under headings as follows:

- ‘Do-Nothing’ Alternative
- Alternative Locations
- Alternative Layouts
- Alternative Designs
- Alternative Processes
- Alternative Mitigation Measures

4.1 ‘Do-Nothing’ Alternative

The ‘Do-Nothing’ alternative considers the likely scenario that would arise, assuming the proposed development were not progressed, i.e. if nothing were done. In this case, the Do-Nothing scenario might entail:

- (a) A continuation of the existing status and use of the lands (i.e. predominantly agricultural land, waste ground and former golf course lands). In the context of the ongoing housing crisis in the Dublin Metropolitan Area, this scenario is regarded as socially suboptimal. The opportunity cost, in this scenario, would include the 548 residential units proposed.
- (b) Development (likely very similar to the current proposal) under the scope of a separate proposal and application at some point in the future. This scenario is also possible, considering the zoning and development objectives for the lands under the *Fingal Development Plan 2017 – 2023* and the *Kilmartin Local Area Plan* (2013; as extended), and significant demand for housing in the Dublin Metropolitan Area.

4.2 Alternative Locations

Taking account of the Local Authority zoning and development objectives for the site of the proposed development (which are consistent with the proposed use); and considering that the proposed development itself has been tailored for the achievement of site-specific development objectives, as set out in the *Fingal Development Plan 2017 – 2023* and *Kilmartin Local Area Plan* (2013; as extended); it is not considered that the consideration of alternative locations is relevant in this case.

4.3 Alternative Layouts & Designs

A series of design iterations of the proposed development have been considered, as detailed in the main text of the Environmental Impact Assessment Report (Volume 2):

Hollystown Sites 2 & 3

- Design Alternative 1
- Design Alternative 2
- Design Alternative 3
- Design Alternative 4 – Final Layout

Kilmartin Local Centre

- Design Alternative A
- Design Alternative B
- Design Alternative C

The design and layout of the proposed development has evolved over time from the initial conceptual design, on the basis of project team reviews and consultations with Fingal County Council. Some key considerations / aims that have influenced the evolution of the proposal are as follows:

- Provision of high-quality recreational open space.
- Transition away from a road and car parking dominated public realm to more appropriate roads hierarchy, including shared surfaces and podium parking.
- Retention of existing hedgerows and trees, where practicable.
- Provision of high-quality pedestrian and cycle facilities / infrastructure.
- Provision of high proportion of dual aspect units.
- Provision of high-quality crèche and Montessori facilities.
- Creation of distinctiveness and sense of place through varied housing typologies and character areas.
- Provision of connectivity and integration with existing and planned development in the area, particularly the adjacent Bellingsmore and Hollywoodrath residential developments, planned GAA facilities to the north, existing National School, and existing road network and public realm.
- Maintenance of building-free corridors around existing overhead power lines, traversing both Hollystown Sites 2 & 3 and Kilmartin Local Centre portions of site of the proposed development.

4.4 Alternative Processes

Having regard to the nature of the proposed development, this is not considered a relevant class of alternatives in this case.

4.5 Alternative Mitigation Measures

Where appropriate, alternative mitigation measures will be considered by the relevant specialist contributors to the Environmental Impact Assessment Report.

5 Description of the Proposed Development

This Chapter of the Environmental Impact Assessment Report provides a general description of the site and its surrounds, sets out the need for the proposed development, and describes the proposed development – its design, construction methodology and envisaged operation. In accordance with Article 5(1)(a) of the 2011 EIA Directive, as amended by Directive 2014/52/EU, the description of a proposed development should comprise “...information on the site, design, size and other relevant features”.

5.1 Need for the Proposed Development

The proposed residential development will contribute to the consolidation of an emerging peri-urban residential area at Tyrrelstown, Kilmartin and Hollystown. It is situated on lands zoned for the corresponding purposes under the *Fingal County Development Plan 2017 – 2023*. The need for the proposed development is set out in the Development Plan and, more specifically, in the *Kilmartin Local Area Plan* (2013; as extended). It will provide 548 new, high-quality residential units, contributing to the achievement of Fingal County Council’s housing targets, and will support population growth as envisaged in local, regional and national policy documents. It will also provide recreational open space and community amenities, including two crèches, a café, community hub and Montessori school, to meet the needs of existing and future residents in the area.

5.2 Site of the Proposed Development

The proposed development is situated in an emerging peri-urban residential area in the Hollystown / Kilmartin / Tyrrelstown area, in the north-east of the Dublin Metropolitan Area (DMA), Co. Dublin. The Kilmartin Local Centre portion of the site is situated immediately north of the existing Tyrrelstown Local Centre. The nearest major commercial centres are at Mulhuddart and Blanchardstown, c. 3 km and 5 km to the south, respectively. Dublin City Centre is approx. 11 km to the south-east. Existing development in the area is defined by medium density residential developments and industrial areas. The site is at the interface of the suburbs and rural hinterlands to the north and west.

The site of the proposed development has a total area of c. 25.3 ha. It is predominantly a greenfield site, with small areas of waste ground and areas currently under construction or in use as a construction compound for the adjacent Bellingsmore residential development (planning refs. FW13A/0088/(E1), PL06F.243395). The site is part of wider land bank under the ownership of the Applicant, including the former Hollystown Golf Club and agricultural lands to the west.

The site is comprised of two main areas that will be referred to herein as (1) Hollystown Sites 2 & 3 and (2) the Kilmartin Local Centre. Extending westward (and then north and south) from Sites 2 & 3 is also the location of a proposed foul water outfall sewer. Similarly, a proposed foul water outfall sewer extends westward for the Local Centre site. Extending northward from Sites 2 & 3 is a proposed open space corridor / pedestrian and cycle link to planned GAA pitches to the north (the subject of a separate application).

5.3 Main Features of the Proposed Development

The proposed development relates to a site of c. 25.3 ha at the townlands of Hollystown, Kilmartin, Hollywoodrath, Cruiserath, Yellow Walls, Powerstown, and Tyrrelstown, Dublin 15, which includes lands

in the former Hollystown Golf Course and lands identified under the Kilmartin Local Area Plan (2013; as extended).

Figure 5.1 Proposed development site layout²



² Note that proposed foul sewer outfall element is not shown in its entirety. Refer to **Figure 1.2**.

The lands are bound by the R121 and Hollywoodrath residential development to the east, the under construction Bellingsmore residential development to the south and north, the former Hollystown Golf Course to the north, Tyrrellstown Educate Together National School, St.Luke's National School and Tyrrellstown Community Centre to the west and south and the existing Tyrrellstown Local Centre to the south.

The proposed development will provide for the development of 548 no. residential units, consisting of 147 apartments/duplexes and 401 houses, ranging in height from 2 to 5 storeys and including retail/café unit, 2 no. crèches, 1 no. Montessori, 1 no. community hub, car and bicycle parking, open space, public realm and site infrastructure over a site area of c. 25.3 ha.

The site of the proposed development is comprised of two principal elements: the Hollystown Sites 2 & 3 area and the Kilmartin Local Centre area; plus foul sewer outfalls extending from these areas to the west, and a proposed pedestrian and cyclist link extending to the north of the Hollystown Sites 2 & 3 areas (**Figure 1.2**). In the Hollystown Sites 2 & 3 area, the proposed development provides for 428 units consisting of 401 no. 2 and 3 storey houses and 27 no. apartments set out in 9 no. 3-storey blocks. In the Kilmartin Local Centre area, the proposed development provides for 120 no. apartment/duplex units in 4 no. blocks ranging in height from 3 to 5 storeys. The local centre includes 2 no. crèches (including 1 standalone 2 storey crèche), 1 no. Montessori, a retail/café unit, and 1 no. community hub.

5.4 Construction of the Proposed Development

The envisaged duration of the construction phase is 39 months (or 3.25 years). **Table 5.1** provides an overview of the envisaged construction activities.

Table 5.1 Overview of construction activities

Stage	Activities
Site enabling works	<ul style="list-style-type: none"> ■ Securing of site boundary and erection of fencing and hoarding ■ Identification of on-site services and service terminations ■ Provision of temporary power, lighting and water services ■ Establishment of site accommodations and welfare facilities ■ Vegetation clearance and demolition works ■ Implementation of any pre-construction surveys and mitigation required at this stage
Sub-structure & superstructure works	<ul style="list-style-type: none"> ■ Excavation of foundations ■ Construction / placement of services / utilities infrastructure ■ Construction of floor slabs ■ Construction of superstructures and roofs ■ Fit out of buildings ■ Landscaping and re-instatement
Infrastructure works	Site infrastructure works will include the completion of all permanent infrastructure, including services / utilities (surface water drainage, foul drainage, electricity, etc.) and road and street network.

It is envisaged that construction traffic will enter and exit Sites 2 and 3 at the southern boundary of the site, via the extended primary link street (Hollystown Road) connecting to the R121 through the Bellingsmore residential development (planning refs. FW13A/0088/(E1); PL06F.243395). Access to the Local Centre will be via the existing primary link street (Hollystown Road).

A construction compound (including storage areas, staff and visitor parking, staff facilities and offices) will be provided by the contractor in the lands made available. It is envisaged that the main construction compound will be situated within the Hollystown Site 3 area, with an additional compound situated in the Local Centre area.

Envisaged working hours are as follows:

Monday – Friday: 07:00 – 19:00 hrs

Weekends / Bank Hols.: No works

Works outside of these hours will be subject to prior agreement with Fingal County Council.

Standard best practice site management protocols, including good housekeeping and efficient materials management, will be implemented. A suite of construction plans will also be implemented, including the following:

- Construction & Environmental Management Plan (CEMP)
- Traffic Management Plan
- Arboricultural Method Statement
- Construction Air Quality Management & Monitoring Plan
- Resource & Construction Waste Management Plan

6 Consultation

Section 4(1) of the Planning and Development Act, 2016, provides that a planning application for a strategic housing development (SHD) shall be made directly to An Bord Pleanála and not to a Local Authority, as was the case previously. The strategic housing development process comprises three mandatory stages, as follows:

1. Consultation with the Local Authority (Fingal County Council) under Section 247 of the Planning & Development Act, 2000, as amended;
2. Pre-application consultation with An Bord Pleanála under Section 6 of the Planning & Development (Housing) and Residential Tenancies Act, 2016;
3. Planning application to be submitted directly to An Bord Pleanála.

Consultation meetings were held in relation to the proposed development with representatives of the Applicant, design team and Fingal County Council's Planning, Transport, Parks and Water Departments, on several occasions between December 2019 and February 2021.

Tri-partite pre-application consultation meetings with An Bord Pleanála, representatives of Fingal County Council and the Applicant were held in respect of the Kilmartin Local Centre and Hollystown Sites 2 & 3 elements of the proposed development on 30 August 2021 and 1 September 2021, respectively. In relation to the Kilmartin Local Centre, an Opinion was issued by ABP on 3 September 2021, which stated that:

"An Bord Pleanála has considered the issues raised in the pre-application consultation process and, having regard to the consultation meeting and the submission of the planning authority, is of the opinion that the documents submitted with the request to enter into consultations constitute a reasonable basis for an application for strategic housing development."

On 6 September 2021, an Opinion was issued by ABP in relation to Hollystown Sites 2 & 3, which stated that:

"An Bord Pleanála has considered the issues raised in the pre-application consultation process and, having regard to the consultation meeting and the submission of the planning authority, is of the opinion that the documents submitted with the request to enter into consultations require further consideration and amendment to constitute a reasonable basis for an application for strategic housing development."

The Opinion provided a list of issues to be addressed that could result in the proposal constituting a reasonable basis for strategic housing development, which have been considered in design of the proposed development.

The planning application for the proposed development has now been submitted directly to An Bord Pleanála. The application and all accompanying documents will be available on public display for review by the public and interested parties. Public submissions on any aspect of the development may be made to An Bord Pleanála, and will be taken into account in the determination of the application by the Board.

7 Population & Human Health

This chapter of the Environmental Impact Assessment Report assesses the impacts of the construction and operational phases of the proposed development on population and human health. It has been prepared by Brady Shipman Martin in accordance with the relevant legislation and guidelines, including those from the Environmental Protection Agency and Institute of Environmental Management and Assessment. It has been informed by extensive desk research.

The site of the proposed development is situated in an emerging peri-urban area in the Hollystown / Kilmartin / Tyrrelstown area, in the north-east of the Dublin Metropolitan Area (Dublin 15). The nearest major commercial centres are at Mulhuddart and Blanchardstown, c. 3 km and 5 km to the south, respectively. Dublin City is c. 15 km to the south-east. The area is at the interface of the suburbs of Dublin City and the rural hinterland to the north. Residential development in the area is typical of suburban areas, being dominated by modern, medium- to large-scale housing estates. Data from the Central Statistics Office indicate a high modal share of private car use in the area, with relatively low rates of walking, cycling and public transport use.

The site is located in the Local Electoral Area of Mulhuddart and the Electoral Division of the Ward, which has experienced significant growth in recent years. The Central Statistics Office population statistics indicate that population growth in the Electoral Division has been roughly double that of the Local Electoral Area and wider Fingal County Council administrative area, and over four times the rate that occurred at the national level.

There is a concentration of industrial activity in this area, with industrial estates in neighbouring areas at Damastown and Tyrrelstown. There is a hub of commercial and community amenities (including large grocery stores, medical clinic, pharmacy, restaurants, church, bank and crèche) immediately south of the proposed development at Tyrrelstown Local Centre, situated immediately south of the location of the proposed Kilmartin Local Centre.

Dublin Airport is a c. 6 km linear distance from the site of the proposed development, and the location of the proposed development is situated underneath a departure flight path. The Hollystown Sites 2 & 3 portion of the site of the proposed development falls wholly within Noise Zone B, while the Kilmartin Local Centre area falls wholly within Noise Zone C, as designated in Variation No. 1 of the *Fingal Development Plan 2017 – 2023*.

There are a range of healthcare facilities in the vicinity of the proposed development, including a pharmacy and clinics at the Tyrrelstown Local Centre. The nearest public hospital is Connolly Hospital, Blanchardstown.

The duration of the construction phase is expected to be somewhere in the region of 39 months (or 3.25 years). In the absence of mitigation, predicted impacts on population and human health during the construction phase may be summarised as follows:

- Potential nuisance due to dust generating activities;
- Potential nuisance and disturbance due to noisy activities;
- Potential negative impacts on journey characteristics / parking due to presence of construction traffic;
- Potential negative impacts on landscape and visual amenity due to presence of construction site and effects of construction activities (e.g. dust, dirt, stockpiling of soils, removal of vegetation, etc.);

- Positive economic impacts due to construction employment and increased demand for goods and services; and
- Potential negative human health impacts on site personnel associated with potential presence of asbestos in structure to be demolished.

In the absence of mitigation, predicted impacts on population and human health as a result of the operational phase may be summarised as follows:

- Potential nuisance and disturbance due to noise generated by airplanes, traffic (including deliveries / collections), building services plant, the operation of community amenities / café and the cumulative noise impact of the foregoing.
- Potential negative impacts on journey characteristics due to additional operational phase traffic generated by the proposed development.
- Positive impacts on journey characteristics due to enhanced permeability across the site.
- Potential visual impacts due to completion of proposed development, establishing substantial new residential / local centre development.
- Potential socioeconomic impacts due to employment opportunities and increased demand for goods and services locally.
- Positive socioeconomic impacts due to provision of significant additional housing.

There is substantial interaction between Population & Human Health and other environmental topics addressed in the Environmental Impact Assessment Report, and mitigation measures of relevance to this element of the assessment have been set out throughout the report. These include measures in relation to community liaison, dust (Chapter 11 – Air Quality & Climate), noise (Chapter 12 – Noise & Vibration), construction site screening and tree protection (Chapter 13 – Landscape & Visual) and traffic management (Chapter 16 – Traffic & Transportation). Additionally, A Construction & Environmental Management Plan (CEMP) will be implemented during the construction phase, which will contain a range of measures to avoid / minimise adverse impacts on the local community.

Assuming the implementation of the mitigation measures set out in the Environmental Impact Assessment Report, significant negative residual impacts on population and human health will be largely avoided, with one exception. The potential persists for ***short-term, significant, negative, residual impacts*** to arise at residential receptors within 25 m of the proposed development site during the construction phase, as a result of noisy construction activities. As stated previously, these impacts will constitute nuisance / disturbance during daytime hours only, and will not result in significant negative human health impacts.

8 Biodiversity

This chapter of the Environmental Impact Assessment Report was prepared by Brady Shipman Martin. It assessed the likely effects of the proposed development on biodiversity (flora and fauna). It has been informed by extensive desk research and various ecological surveys undertaken at the site for the purposes of the assessment, including habitat, invasive species, large mammal and bat surveys. The assessment was carried out in accordance with the relevant legislation and guidelines, including those of the Environmental Protection Agency; European Commission; National Roads Authority (now Transport Infrastructure Ireland); Chartered Institute of Ecology and Environmental Management; and the Department of Housing, Local Government and Heritage.

The potential impacts on European (Natura 2000) sites was also assessed by Brady Shipman Martin, and the results of that assessment are presented in a separate report, the Appropriate Assessment Screening Report, submitted as part of the planning application. There are no designated conservation sites at the site of the proposed development or in the immediate vicinity. The Appropriate Assessment Screening Report has concluded, on the basis of objective information, that the proposed development will not have significant effects on any European site, either individually or in combination with other plans or projects.

The site of the proposed development is situated predominantly on former golf course lands and used and disused agricultural lands. The main habitats present at the Hollystown Sites 2 & 3 portion of the proposed development site are disturbed ground (construction compound) and former amenity grassland grading to more diverse dry meadows and grassy verges. There are trees scattered throughout the area, with a pocket of immature woodland plantation in the centre of the site, and hedgerows and treelines throughout the site. There is an existing network of open drainage ditches traversing the site, and a small artificial pond remains from the golf course landscaping. The complex of habitats within the Hollystown Sites 2 & 3 portion of the proposed development site (including the proposed pedestrian and cycle link extending to the north) are of Local Importance (Higher Value) – with the exception of the area of disturbed ground currently in use as a construction compound for the neighbouring Bellingsmore residential development, which has no ecological value.

The main habitats present at the Kilmartin Local Centre portion of the proposed development site are buildings and artificial surfaces (a gravel car park), amenity grassland and species-poor rank grassland. A heavily modified drainage ditch traverses the site from east to west. A section of hedgerow is located on the western side of the site. The complex of habitats within the Kilmartin Local Centre portion of the site of the proposed development are of Local Importance (Lower Value).

The route of the proposed foul sewer outfall traverses arable and pastoral agricultural land, hedgerows, treelines, scrub and a small stream. This complex of habitat is of Local Importance (Higher Value).

There are no known records of rare or protected plant species within the proposed development site, and none were recorded during any of the site visits undertaken. No invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) were recorded at the proposed development site during the surveys undertaken.

All birds recorded at the site are common species, the majority of which are green-listed in Ireland, with the exception of starling and swallow, both of which are amber-listed, and were recorded in small numbers at the site. No evidence was recorded during the surveys undertaken of large protected mammal activity, e.g. of badger or otter. Foxes and rabbits, neither of which is legally protected, were

observed at the site on numerous occasions. One adult frog was recorded in the Hollystown Sites 2 & 3 portion of the site, which contains suitable breeding habitat for amphibians.

Four species of bat – common pipistrelle, soprano pipistrelle, brown long-eared bat and Leisler's bat – were recorded at the site during surveys undertaken. A Leisler's bat mating perch was noted in a mature ash tree in the Hollystown Sites 2 & 3 portion of the site. Otherwise, while a number of potential bat roosts were noted at the site, no signs of use were observed during the surveys undertaken.

During the construction phase of the proposed development, the predicted ecological impacts may be summarised as follows:

- In the absence of mitigation, the loss of grassland, trees and hedgerow species within the parts of the proposed development site within the former golf course (and to a lesser extent within the proposed Local Centre site) is considered to be a *permanent, minor to moderate impact at the site level*. The extensive landscaping and planting proposed will, over time, reduce this impact to *neutral* or *slight positive*.
- In the absence of mitigation, there may be a *short-term, slight to moderate impact* on the tree lines as a result of the proposed pipeline crossings. The reinstatement of any removed trees and shrubs will, over time, reduce this impact to *neutral*.
- The loss of a proportion of the hedgerows and tree lines on the site will result in impacts on nesting birds. However, it is not expected that these impacts will be significant, particularly in view of the fact that the habitat areas within the open space will be retained and enhanced.
- The proposed development will result in the loss of a single mating perch for Leisler's bat, located in an existing mature tree to be felled. A derogation licence has been obtained from the National Parks and Wildlife Service in relation to this. The loss of this mating perch and other potential bat roosts at the site, in the absence of mitigation, will constitute a *long-term, moderate, negative impact*.
- In the absence of mitigation, the loss of scrub and trees on the site and associated loss of feeding and commuting corridor habitat for bats, would constitute a *long-term to permanent, moderate, negative impact*.
- In the absence of mitigation, the addition of artificial lighting to the site of the proposed development could result in a *long-term, moderate, negative impact* on bat species using the site.

During the operational phase of the proposed development, the predicted ecological impacts may be summarised as follows:

- In the absence of mitigation, artificial lighting at the site of the proposed development could result in a *long-term, moderate, negative impact* on bat species using the site.

Proposed mitigation measures and mitigation inherent in the design of the proposed development have been taken into consideration in the assessment of the residual impacts of the proposed development. Mitigation inherent in the design of the proposed development includes the proposed landscape design, which will feature planting to bolster the biodiversity resource at the site; and the incorporation of sustainable drainage systems (SuDS) measures into the proposed surface water drainage design. A suite of mitigation measures have been proposed, including but not limited to the following:

- In order to avoid / minimise the risk of the introduction or dispersal of invasive species, biosecurity measures will be implemented during the construction phase of the proposed development under the scope of a Biosecurity Plan.

- The clearance of scrub and other vegetation that may be suitable for use by nesting birds will be undertaken outside the bird nesting season (avoiding the period 1 March to 31 August). Should the construction programme require vegetation clearance between March and August, and this is unavoidable, bird nesting surveys will be undertaken by suitably qualified ecologists. If no active nests are recorded, vegetation clearance will take place within 24 hours. In the event that active nests are observed, an appropriately sized buffer zone (up to 5 m radius around the nest) will be maintained around the nest until such time as all the eggs have hatched and the birds have fledged – a period that may be three weeks from the date of the survey. Once it is confirmed that the birds have fledged and no further nests have been built or occupied, vegetation clearance may take place immediately.
- A number of bat and bird boxes will be erected, with advice from the project Ecologist, in appropriate areas. The boxes proposed are as follows (subject to revision based on the availability of suitable boxes in the future):
 - To replace the mating perch, it is proposed to install one bat box (such as the Eco Rocket Bat Box or similar) on a steel pole. If feasible, it is also proposed to cut the mating perch branches from the ash tree and securely attach them to a pole within the retained woodland plantation.
 - 12 no. Schwegler 2F with double front panel or similar.
 - 12 no. Schwegler 2F with double front panel or similar.
 - 9 no. Eco bat boxes (wooden).
 - 15 no. assorted wooden or woodcrete bird boxes, suitable for use by robins, blue tits and tree creepers.
- The removal of the aforementioned Leisler's bat mating perch shall be carried out in accordance with the derogation licence received from the National Parks and Wildlife Service on 2 December 2021. Works can only proceed in accordance with the licence terms and only following the implementation of the required pre-construction mitigation (installation of bat boxes) being in place.
- All mature trees shall be checked for bats by a bat specialist to identify trees and buildings with the highest potential prior to felling or major surgery. From this, trees with the highest roost potential as determined by the bat specialist shall be subjected to a higher level of examination that shall include thorough checking of all suitable crevices, cavities, ivy cover or loose bark. This will require access via a hoist to reach all suitable cavities and crevices. Should bats be noted during this evaluation, an additional derogation shall be required from National Parks and Wildlife Service.
- The lighting design for the proposed development will include the following measures:
 - Where human safety permits it, dark corridors and dark areas will be incorporated into the open space and landscape design for the proposed development;
 - All luminaires shall lack UV elements when manufactured and shall be LED;
 - A warm white spectrum shall be adopted to reduce blue light component; and
 - Luminaires shall feature peak wavelengths higher than 550 nm.

Assuming the implementation of the mitigation measures set out in this chapter of the Environmental Impact Assessment Report, the predicted residual impact on biodiversity is *negligible* overall.

A suitably experienced Project Ecologist will be appointed for the duration of the construction phase and regular monitoring of all related works will take place to ensure the correct and full implementation of all mitigation measures.

9 Land, Soils, Geology & Hydrogeology

This chapter of the Environmental Impact Assessment Report was prepared by AWN Consulting. It assesses the potential impacts of the proposed development on the geological and hydrogeological environment, and proposes mitigation measures, where appropriate.

The Geological Survey of Ireland web viewer shows the site is underlain by circa >10 m of made ground and overburden soil. This was confirmed by on-site ground investigations. The profile on-site comprises of topsoil to a maximum depth of 0.3 m below ground level at the Local Centre Site and 0.15 m below ground level at Hollystown Sites 2 & 3. Probable bedrock depth varies between 1.8 and 2.4 m below ground level.

The groundwater body underlying the site is the Dublin Groundwater Body. Currently, the Environmental Protection Agency (2021) classifies the Dublin Groundwater Body as being ‘under review’. Previously (2013 – 2018 Water Framework Directive cycle), it was recorded as having ‘good status’. The aquifer underlying the site a ‘locally important bedrock aquifer’, which is generally moderately productive. It is not used for public water supply or widely used for potable use.

Site soil analysis indicates that the soil underlying the site is of relatively good quality with all soil samples taken being classified as ‘inert’ as per EU Council Decision Establishing Criteria for the Acceptance of Waste at Landfills (Council Decision 2003/33/EC), referred to as ‘Waste Acceptance Criteria’.

Based on the National Roads Authority / Institute of Geologists of Ireland criteria for rating the importance of hydrogeological features, the features at this site are rated as being of ‘medium importance’.

Construction works will require the removal of soils / stones. Excavations are expected to be to a maximum depth of 2.2 m below ground level, for the installation of foundations, services, etc. Due to the thickness of low permeability overburden present at the site, and the relative shallowness of the proposed excavations, the underlying hydrogeological environment will have significant protection from surface infiltration during construction.

Temporary storage of soil will be carefully managed to prevent any potential negative impact on the receiving environment, particularly the Pinkeen East watercourse and any surface water drains or gullies. Material will be stored away from the surface water drainage network. Movement of material will be minimised in order to reduce degradation of soil structure and the generation of dust.

It is not proposed to remove any excavated soil or stones off-site. It is envisaged that all excavated material will be reused on-site as fill material. All soils will be visually assessed for signs of possible contamination such as staining or strong odours. Soil analysis has shown that the *in situ* material is of good quality. Should soil need to be removed from the site, this will be segregated, classified and appropriately disposed of by a suitably permitted / licensed waste disposal contractor.

During construction phase of the proposed development, there is a risk of accidental pollution from the following sources:

- Spillage or leakage of temporary oils and fuels stored on-site;
- Spillage or leakage of oils and fuels from construction machinery or site vehicles;
- Spillage of oil or fuel from refuelling machinery on-site; and
- Run-off from concrete and cement works.

Corresponding pollution prevention mitigation measures have been set out, and the construction phase will be carried out in accordance with a Construction & Environmental Management Plan, to be finalised by the appointed contractor in agreement with Fingal County Council.

All fuels, oils, solvents and paints used during construction will be stored within temporary bunded areas or in double skinned tanks in designated areas of the site away from surface water drains. Re-fuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles will take place off-site or in a designated area that will be away from any existing surface water drains. In the event of a machine requiring refuelling outside of this area, fuel will be transported in a mobile double skinned tank. An adequate supply of spill kits and hydrocarbon adsorbent packs will be stored in this area. All relevant personnel will be fully trained in the use of this equipment. Guidelines such as *Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors* (CIRIA 532, 2001) will be complied with.

The potential impacts of the proposed development on land, soils and the hydrogeological environment during operation have been assessed in relation to:

- Accidental pollutant emissions; and
- Reduction in local recharge to groundwater.

There will be no direct discharges to ground or abstractions from the aquifer during the operation of the proposed development.

There will be no bulk storage of fuel required for the operation of the proposed development. Any accidental leaks from cars within the car parking / road areas will be directed through the surface drainage system via an appropriately sized interceptor.

There will be an increase in hardstanding at the site of c. 11 ha. The impermeable surface will minimise the potential influx of any contaminants into soils and underlying groundwater.

Following implementation of mitigation measures detailed in this chapter of the Environmental Impact Assessment Report (Volume 2), the predicted residual impact during the construction of the proposed development is *short-term, imperceptible and neutral*. The predicted residual impact during the operational phase is *long-term, imperceptible and neutral*.

10 Hydrology

AWN Consulting has prepared this chapter of the Environmental Impact Assessment Report, which assesses the potential impacts of the proposed development on the surrounding hydrological environment, and proposed mitigation measures, where appropriate.

The site of the proposed development is hydrologically connected to the River Tolka via the Pinkeen East Stream, its tributaries and an existing network of open ditches and drains on the site. The Tolka (along with the River Liffey) drains a large catchment of Dublin City. Locally, the Tolka flows to the south of Finglas, and then through the north Dublin districts of Glasnevin and Drumcondra, where it comes closest to the Royal Canal near Binn's Bridge. At the southern side of Tolka Park, the Tolka forms the border between Ballybough and Fairview, before entering the Tolka Estuary / Dublin Bay between East Wall and Clontarf. The River Tolka itself and the Tolka Estuary are currently identified as being 'at risk' of not achieving their Water Framework Directive objectives.

Based on the National Roads Authority criteria for rating the importance of hydrological features, the features at this site are rated as being of 'medium importance'. This is due to a poor biotic index (Q value of 2 – 3) and lack of use as a potable water source.

The site of the proposed development is situated entirely within Flood Zone C and, as such, there is negligible flood risk associated with the proposed development, and negligible flood risk to surrounding areas arising from the proposed development. As per the Office of Public Works guidelines, *The Planning System and Flood Risk Management*, the proposed development is deemed 'appropriate' in this regard.

A preliminary Construction & Environmental Management Plan accompanies this planning application under separate cover. A final Construction & Environmental Management Plan will be prepared by the appointed contractor, in agreement with Final County Council, in advance of works, and implemented throughout the proposed works. This Plan will cover all potentially polluting activities and include an emergency response procedure. It will include but not be limited to the following measures:

- Silt reduction measures, including sit traps and settlement tanks will be employed.
- In order to minimise the risk of groundwater ingress, any excavations required will remain open for as little time as possible before the placement of fill.
- In order to minimise the risk of run-off from the site, weather conditions will be considered when planning construction activities.
- A minimum set back distance of 10 m will be maintained between topsoil piles, etc., and surface water features.

All personnel working on the site will be trained in the implementation of the Construction & Environmental Management Plan.

Other mitigation measures to be implemented during the construction phase include the following:

- To minimise the risk of impacts to surface water features from material spillages; all oils, solvents, paints, and fuels used during construction will be stored within temporary bunded areas. Each of these areas will be bunded to a volume of 110% of the capacity of the largest tank / container within it (plus an allowance of 30 mm for rainwater ingress). Drainage from the bunded area(s) will be diverted for collection and safe disposal.

- Wet concrete works should not take place within 10 m of any open water channels. A suitable risk assessment for wet concreting will be completed prior to works being carried out, which will include measures to prevent discharge of alkaline wastewaters or contaminated stormwater to groundwater.
- The contractor will be required to make provisions for removal of any concrete wash waters, most likely by means of tankering off-site, and no such wash waters will be discharged to groundwater. Any effluent generated by temporary on-site sanitary facilities will be taken off-site for appropriate treatment.
- Re-fuelling of construction equipment and the addition of hydraulic oil or lubricants to vehicles/equipment will take place off site or in designated bunded areas, where possible. Re-fuelling will be avoided in so far as possible at the other work sites but where necessary will take place on hardstand areas.
- If it is not possible to bring a machine to the refuelling point, fuel will be delivered in a double skinned mobile fuel bowser (>10 m away from open water). A drip tray will be used beneath the fill point during refuelling operations in order to contain any spillages that may occur. The vehicles and equipment will not be left unattended during refuelling. Spill kits and hydrocarbon absorbent packs will be stored in the cab of each vehicle and operators will be fully trained in the use of this equipment.

Potential impact of the proposed development during the operational phase have been assessed in relation to:

- Increased surface water run-off;
- Contamination of surface water;
- Foul water loading; and
- Water supply.

The surface water drainage system for the proposed development incorporates sustainable drainage systems (or 'SuDS') measures, providing a minimum of two-stage treatment of surface water run-off, in accordance with best practice guidelines. Due to a variety of measures, such as the design of the attenuation system with hydrocarbon interception and incorporation of SuDS measures, the likelihood of any spills entering the water environment during the operational phase is negligible. All incidental drainage from the car park will be discharged separately via a Class 2 oil separator to the upgraded surface water system.

Irish Water have confirmed connection to its water and foul network can be facilitated, subject to a connection agreement. The water main layout and details including valves, hydrants, metering, etc., will be in accordance with Irish Water's Code of Practice and Standard Details for water infrastructure.

Following the implementation of the mitigation measures detailed in this chapter of the Environmental Impact Assessment Report (Volume 2), the predicted residual impact on the surface water environment during the construction phase is *neutral, imperceptible, and short-term*. The predicted residual impact during the operational phase is *neutral, imperceptible and long-term*.

11 Air Quality & Climate

This chapter of the Environmental Impact Assessment Report has been prepared by Byrne Environmental Consulting Ltd. It assesses the potential air quality and climatic impacts that the proposed development may have on the receiving environment during the construction and operational phases.

The assessment includes a comprehensive description of the existing air quality in the vicinity of the subject site, a description and assessment of how construction activities and the operation of the proposed development may impact existing air quality and climate, the mitigation measures that will be implemented to control and minimise the impact that the development may have on local ambient air quality and, finally, demonstrates how the proposed development shall be constructed and operated in an environmentally sustainable manner.

In terms of the existing baseline air quality environment, site specific baseline data and published data available from similar environments indicates that levels of nitrogen dioxide (NO₂), carbon monoxide (CO), sulphur dioxide (SO₂), particulate matter less than 10 microns (PM₁₀) and less than 2.5 microns (PM_{2.5}) and benzene are well below the national and European Union (EU) ambient air quality standards.

The construction phase of the proposed development has the potential to generate short-term fugitive dust emissions and vehicular emissions associated with construction vehicles and plant. However, these emissions will be controlled by appropriate mitigation techniques and through the implementation of a Construction Air Quality Management & Monitoring Plan throughout the duration of the construction phase. The predicted construction phase residual impacts on air quality and climate will be *negative, imperceptible to slight*, and *short-term* in duration.

The operational phase the proposed development will see the functioning of modern, well insulated, thermally efficient buildings. The design of the residential units will ensure their operation will have a minimum impact on the receiving climate and that their design will withstand future potential extreme weather events associated with climate change.

The predicted impacts of domestic heating and traffic-generated air pollutants associated with the operational phase of the proposed development will not exceed the ambient air quality standards. The impact of the proposed development on ambient air quality and climate been determined to be *negative, imperceptible* and *long-term* in duration.

12 Noise & Vibration

This chapter of the Environmental Impact Assessment Report has been prepared by AWN Consulting. It assesses the noise and vibration impacts of the proposed development on the surrounding environment during the short-term construction phase and long-term operational phase.

The existing and future noise and vibration environments across the development site and in the vicinity of the nearest existing noise sensitive locations / receptors are dictated by transportation sources in the study area; including aircraft movements and the surrounding road network, including the R121 and local road within the vicinity of the proposed development.

The construction phase will involve site clearance, building construction works and landscaping. The assessment has determined that there is the potential for some *temporary significant noise impacts* when works are undertaken within close proximity (<25 m) of the receptor locations. However, these occurrences will be temporary, and the vast majority of the construction works will take place at distances from the receptors where no significant impacts are predicted, and where construction criterion will be complied with. Predicted construction vibration impacts are *neutral, not significant and short-term*.

The use of best practice noise control measures, hours of operation, scheduling of works within appropriate time periods, strict construction noise limits and noise monitoring during this phase will ensure impacts are controlled to within the adopted criteria. Similarly, vibration impacts during the construction phase will be well controlled through the use of low impact equipment and adherence to strict limit values, which will be subject to monitoring at the nearest sensitive buildings.

During the operational phase, the predicted change in noise levels associated with additional traffic in the surrounding area is predicted to constitute *no significant impact* along the existing road network. In the context of the existing noise environment, the overall contribution of induced traffic is considered to constitute a *neutral, not significant and long-term* impact to nearby residential locations.

In addition, the potential for inward noise effect on the proposed development has been assessed. Due to the noise environment from the existing and future operation of Dublin Airport, all building façades are expected to require enhanced sound insulation specifications for glazing and ventilation to achieve suitable internal noise levels. It is not possible to reduce the noise level across external spaces due to aircraft noise, incident from above, being the dominant noise source. Notwithstanding this, efforts have been made in the Hollystown Sites 2 & 3 portion of the site to provide private external space to each dwelling to the rear of the houses, and substantial external amenity areas will be provided.

Cumulative noise levels associated with the construction phases have been considered and cumulative impacts are likely at the nearest receptor, should all sites progress construction works simultaneously. Once cumulative construction impacts are considered and managed during the construction phase, potential cumulative impacts on nearby sensitive receptors are expected to be *negative, significant and short-term*.

During the operational phase, any cumulative impacts will be due to an increase in road traffic noise. However, given the insignificant levels of noise increase as a result of the traffic associated with this proposed development, it is not expected that cumulative traffic noise will increase by any significant margin as a result of this proposed development.

13 Landscape & Visual

This chapter of the Environmental Impact Assessment Report has been prepared by Brady Shipman Martin. It assesses the likely effects of the proposed development on the landscape and visual aspects of the receiving environment. The assessment has been carried out in accordance with the relevant legislative provisions, policies and guidelines, including those of the Environmental Protection Agency, Landscape Institute and Institute of Environmental Management and Assessment. It has been completed with reference to a series of photomontages of the proposed development from viewpoints in the surrounding environment. These photomontages have been submitted under separate cover as part of the planning application.

The landscape context of the receiving environment has seen substantial change over the past few decades from a rural area to a peri-urban landscape/townscape with a mix of land-uses, and this trend of change is continuing with several local development areas currently under construction or recently completed.

The construction phase of the proposed development will see construction works involving the following:

- Temporary fencing for security and for protection of retained hedgerows / tree-lines;
- Provision of a temporary site compound;
- Demolition works, topsoil stripping and temporary storage of soil for re-use;
- Subsoil excavation and removal from site;
- Grading and preparation of the site for construction works;
- Construction of roads, houses, installation of services, etc.; and
- Construction of areas of public open space.

The operational phase of the proposed development will involve: -

- Establishment of an extended residential development, with extended roads, roadside lighting and emerging community; and
- Access to public open space and community amenities, and to an expanded open network of spaces including the proposed pedestrian and cycle link to the planned GAA pitches.

Potential landscape and visual impacts from the construction phase are associated with: -

- Site-based landscape disturbance, earthworks, stockpiling of soils and materials;
- Removal of trees / hedgerows;
- General construction activity and traffic; and
- Inconvenience and / or visual effects from dust, dirt and noise.

In a scenario where mitigation measures were not implemented or failed, the worst-case landscape and visual impact of the construction phase is assessed as being ***significant, negative and short-term***.

Potential landscape and visual impacts from the operational phase are associated with: -

- The design, character and quality of the proposed buildings;
- The design, amenity and quality of the proposed open spaces and community amenities; and
- The overall quality of finish and management of the proposed development.

In a scenario where mitigation measures were not implemented or failed, the worst-case landscape and visual impact of the operational phase is assessed as being *moderate to significant, negative and long-term*.

A suite of construction phase mitigation measures have been set out. These include measures in relation to site screening, tree protection and construction traffic. It is also noted that the proposed works will be carried out in accordance with a Construction & Environmental Management Plan, which will include measures that will contribute to the mitigation of landscape and visual impacts.

The design of the proposed development includes a number of features / characteristics which will ensure its integration within its setting, including but not limited to the following:-

- Provision of a good quality of architectural design, character and finish for the proposed buildings and development.
- Provision of significant areas of new and connected open space and park with play facilities as amenity and recreation for the new communities. The open spaces provide for retention and incorporation of townland boundaries and tree-lined hedgerows.
- Retention, enhancement and management of existing hedgerows.
- Planting of new trees along streetscapes and within open spaces. Species selected will be appropriate to the street environment and to the characteristics of this location.
- Provision of a high-quality of design and finish for landscape areas within the proposed development.
- Landscape areas will be maintained for twelve months during which any defective or dead material will be replaced.

Assuming the implementation of the mitigation measures proposed, the predicted residual impacts on landscape and visual amenity may be summarised as follows:

- The residual landscape effects resulting from the construction phase would be *slight to moderate, negative and short-term*.
- The residual visual effects resulting from the construction phase would be *moderate, negative and short-term*.
- The residual landscape impact of the operational phase is assessed as being *slight to moderate, neutral and short-term*, becoming *positive in the long-term* as the landscape matures.
- The residual visual impact of the operational phase is assessed as being of *moderate, neutral and short-term*, becoming *positive in the long-term* as the landscape matures.

There will be an in-combination change in the overall character of this urban fringe landscape through continued outward development, however, this is considered part of an ongoing trend that has been occurring within the surrounding area over the long-term, and which is directed and compliant with planning policy that has selected these areas for future development. This change will not result in significant cumulative landscape effects. The site is also visually well contained by existing landscape features, most notably mature trees and vegetation, and therefore *significant cumulative visual effects are not expected*.

14 Cultural Heritage, Archaeology & Architectural Heritage

This chapter of the Environmental Impact Assessment Report has been prepared to study the impact, if any, on the archaeological, architectural and historical resource resulting from the proposed development. The assessment was carried out by Faith Bailey of IAC Archaeology.

The site of the proposed development is located within the townlands of Hollystown and Hollywoodrath, with a proposed pipeline extending through the townlands of Kilmartin and Powerstown. There are eight archaeological sites within 500 m of the proposed development area, four of which are recorded monuments and four of which are scheduled for inclusion in the next revision of the Record of Monuments and Places (RMP). The proposed development area is partially within the zone of notification for DU013-032, an enclosure, where the pipeline extends through the townland of Kilmartin.

There are three structures included on the Record of Protected Structures (RPS) within a 500 m radius of the proposed development. The nearest of these is St. Thomas Church (RPS 0664, 11346001) located c. 217 m to the north. All three structures are listed on both the RMP and the National Inventory of Architectural Heritage (NIAH) Survey; and one structure, Hollywoodrath Gate Lodge, is listed solely on the NIAH (NIAH 11347003), located c. 355 m to the northeast.

There is one demesne landscape within the study area included in the Garden Survey for County Dublin, belonging to Hollywoodrath (NIAH Garden 2267), c. 416 m to the east. The demesne is visible on the first, second, and third edition Ordnance Survey (OS) maps. The proposed development area also extends through the boundaries of all the associated townlands, which include Hollystown, Hollywoodrath, Kilmartin and Powerstown.

The western portion of the Sites 2 & 3 section of the proposed development area is already under construction / in use as a substantial construction compound and storage area and, as such, no direct impacts are predicted upon the archaeological, architectural or cultural heritage resource at this location. The remaining portions of the proposed development site have been subject to previous disturbance (with the exception of the proposed pipeline route). It remains unclear how this disturbance may have affected the archaeological resource. As such, it is possible that ground disturbances associated with the proposed development may have a direct negative impact on any such remains. The significance of impacts may range from *moderate to very significant negative*, dependant on the nature, extent and significance of any archaeological remains that may be present.

No archaeological mitigation is required for the western portion of the Sites 2 & 3 development area (under construction / in use as construction compound). Topsoil stripping in all other areas will be subject to archaeological monitoring. If any features of archaeological potential are discovered during the course of monitoring, further archaeological mitigation may be required, such as preservation *in situ* or by record and / or archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the Department of Housing, Local Government and Heritage.

The route of the proposed pipeline passes through a predominantly greenfield landscape, along with an area that has previously been subject to geophysical survey and subsequent archaeological testing (Gimson 2011, Kavanagh 2012). No specific archaeological features were identified within the footprint of the pipeline. It remains possible that small-scale archaeological features survive beneath the existing ground level along the path of the proposed pipeline, which would be directly and negatively affected by ground disturbances associated with same. The significance of impacts may range from *moderate to*

very significant negative, dependant on the nature, extent and significance of any archaeological remains that may be present.

All ground disturbances associated with the construction of the proposed pipeline will be monitored by a suitably qualified archaeologist. If any features of archaeological potential are discovered during the course of the works, further archaeological mitigation may be required, such as preservation *in situ* or by record. Any further mitigation will require approval from the National Monuments Service of the Department of Housing, Local Government and Heritage.

No construction impacts are predicted upon the remaining architectural and cultural heritage resource.

No likely significant impacts on the cultural heritage, archaeological or architectural heritage resource are predicted during the operational phase.

Assuming the implementation of the above-stated mitigation measures, ***no significant residual impacts*** are predicted in relation to the cultural heritage, archaeological or architectural heritage resource.

15 Microclimate – Daylight & Sunlight

This chapter of the Environmental Impact Assessment Report was prepared by IN2 Engineering. It summarises the impact assessment undertaken in relation to daylight and sunlight for the proposed development. Daylight and sunlight assessments were carried out for the proposed development utilising BRE guideline, *Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice*, ('BR 209'; 2nd Edition), as per the Daylight & Sunlight Report, submitted under separate cover as part of the planning application.

Daylight and sunlight analyses are required, both as measure of the quality for the proposed buildings and to determine the potential impact to neighbouring buildings resulting from the proposed buildings.

BR 209 states that where the *“distance of new development (is) more than three times its height above lowest window (of nearest adjacent existing building)”* then *“Daylighting is unlikely to be significantly affected”*. In the case of the proposed development, there are no neighbouring buildings within this zone of potential impact, so only internal daylight has been assessed herein. In relation to sunlight availability, the risk of existing dwellings being adversely affected is defined in BR 209 as only occurring where *“any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the (existing) window”*. Therefore, the proposed development does not give rise to any impact with regards to existing sunlight availability in neighbouring areas.

The analysis determined that 338 out of a total of 349 (97%) of rooms were in excess of the BRE criteria for Average Daylight Factor. Assessments were undertaken for compliance to full room area based on Average Daylight Factor = 2.0%+ and 1.0%+ to kitchen / living / dining rooms and bedrooms, respectively.

The amenity sunlight assessment determined that all spaces will be comfortably in excess of the BRE guidelines target of 50%, with spaces achieved 99 – 100% daylight availability.

The design of the proposed development is such that ***no negative impacts*** are expected in relation to the daylight or sunlight levels experienced by future inhabitants of the proposed development or by existing inhabitants of the adjoining sites. Therefore, no further mitigation measures are required in relation to daylight or sunlight.

16 Traffic & Transportation

This chapter of the Environmental Impact Assessment Report was prepared by DBFL Consulting Engineers and assessed the likely impacts of the proposed development on traffic and transportation (including the existing local road network) during the construction and operational phases. It has been informed by extensive desk research, a site audit and road network analysis / modelling.

The R121 regional road forms the eastern boundary of the proposed development site and provides links to the wider strategic road network, including the M50, N2 and N3. The proposed development site is located to the north of the existing Tyrrelstown Local Centre and lies between the N2 Motorway (Junction 2) and the N3 Motorway (Junction 3). The site is situated approximately 750 m south of Hollystown, 3.0 km north of Mulhuddart and 4.3 km north of Blanchardstown Centre, respectively. Connectivity is offered towards the wider Dublin area via the M50 Motorway, which is situated approximately 7.0 km south-east of the site.

In terms of existing active travel infrastructure, the proposed development site benefits from a number of cycle and pedestrian facilities that are provided in the immediate vicinity. There are also a number of public bus services that currently service Tyrrelstown local centre and its environs. Dublin Bus service 40d currently connects Tyrrelstown with Dublin City Centre, and the 40e route connects to Broombridge, while providing further opportunities for Luas and rail connections. Go-Ahead 236/a connects Damastown IBM and Blanchardstown via Tyrrelstown, while Go-Ahead 238 connects Tyrrelstown with Blanchardstown (Lady's Well Road). The location of the proposed development will benefit from future planned transport projects, including the Greater Dublin Area Cycle Network Plan and BusConnects.

During the construction phase of the proposed development, it is envisaged that construction traffic will access the site via the existing partially constructed link street ('the Avenue' / 'Hollystown Road'), and construction vehicle parking requirements can be accommodated on-site, thereby minimising impacts on the surrounding road network. ***No significant impacts*** are predicted in relation to traffic or transportation during the construction phase.

The assessment of operational phase traffic impacts has been based on traffic modelling / road network analysis. Potential peak hour traffic generation during the operational phase has been calculated for the AM and PM peaks.

According to the Institution of Highways and National Roads Authority (now Transport Infrastructure Ireland) guidelines, a change in traffic levels is considered material when in excess of 10% and 5% on normal and congested networks, respectively. When such levels of impact are generated, a more detailed assessment should be undertaken to ascertain the specific impact upon the network operational performance.

In accordance with the aforementioned guidelines, assessments have been undertaken to establish the potential level of impact upon the operational performance of key junctions of the local road network, in the Opening Year (2023) and future Design Year (2028 and 2038) scenarios, taking account of future trip generation of other committed residential developments in the locality; namely the Bellingsmore residential development (FCC reg. ref. FW13A/0088), Hollywoodrath residential development (FCC reg. ref. FW14A/0108) and the Hollystown Site 1 residential development (FCC reg. ref. FW21A/0042); as well as educational facilities planned under the scope of the *Kilmartin Local Area Plan* (2013; as extended).

The results of the traffic analysis for the operational phase indicate that all junctions would operate within capacity in the opening year (2023), with the majority of junctions operating within capacity during the future design year (2038), with the exception of Junction 5 (the Avenue (Hollystown Road) / R121 / Hollywoodrath / Cherryhound Tyrrelstown Link Roundabout Junction), whose capacity would be exceeded during the AM peak. Additionally, Junction 7 (R121 / Boulevard / Cruiserath Drive Roundabout Junction) would near capacity during the AM peak, but still provide a level of service (LOS) of A.

The new link street ('the Avenue' / 'Hollystown Road') junction at the northern edge of the subject site is proposed to be a priority controlled junction and is predicted to be appropriate to cater for the likely demand in the operational phase. Similarly, the new vehicular access onto the R121 serving Site 2 is proposed to be a priority controlled junction and is predicted to be appropriate to cater for the likely operational demand.

A suite of mitigation measures have been set out in relation to construction phase traffic management and operational phase mobility and car parking management, in order to avoid or minimise traffic-related impacts insofar as practicable. The predicted construction phase residual impact is **temporary** and **neutral**. The predicted operational phase residual impacts range from **not significant and neutral** to **slight negative**, depending on the year and junction in question. **No significant negative impacts** are predicted to occur.

17 Material Assets – Waste

This chapter of the Environmental Impact Assessment Report has been prepared by Byrne Environmental Consulting Ltd. It has assessed the potential impacts of the construction and operational phases of the proposed development in terms of waste and waste management. The assessment includes a comprehensive description of the nature and quantities of wastes that shall be generated during the construction and operational phases, and a description of how wastes generated shall be managed in accordance with the waste management objectives of the *Fingal Development Plan 2017 – 2023* and Waste Management Guidelines.

Site-specific Construction and Operational Waste Management Plans have been prepared in outline form to ensure that the construction and operational phases of the proposed development will be managed to reduce the generation of unsegregated wastes; to maximise the potential for recycling, recovery and re-use; to demonstrate how the proposed development will operate in a sustainable manner, in terms of waste management; and how the proposed development will contribute to the achievement of the waste reduction targets specified in the *Eastern-Midlands Region Waste Management Plan 2015 – 2021* (and future revisions). The appointed contractor shall finalise the Resource & Construction Waste Management Plan in advance of the commencement of the proposed works. The Applicant shall finalise and maintain the Operational Waste Management Plan.

The residual impact associated with the construction phase will be the generation of a small quantity of unrecyclable and non-reusable construction waste, which will result in a ***negative, not significant, regional impact*** of ***short-term duration***.

The residual impact associated with the operational phase will be the generation of a small quantity of unrecyclable and non-reusable domestic and commercial waste, which will result in a ***negative, not significant, regional impact*** of ***long-term duration***.

18 Material Assets – Services

This chapter of the Environmental Impact Assessment Report was prepared by Brady Shipman Martin and assesses the potential impacts of the proposed development on ownership, access and utilities infrastructure. It has been prepared in accordance with the relevant legislation and guidelines, including those of the Environmental Protection Agency and National Roads Authority. It has been informed by extensive desk research.

The majority of the site of the proposed development is under the ownership of the Applicant, with some small areas under the ownership of Fingal County Council. There are two Electricity Supply Board wayleaves associated with overhead electricity supply cables traversing the Hollystown Sites 2 & 3 area and Kilmartin Local Centre area, respectively. There is also a wayleave associated with the existing road infrastructure running north-south through the Local Centre area. During the construction phase, the site shall remain under the ownership of the Applicant, with the exception of any areas under the ownership of the Local Authority, for which a letter of consent will be required. There will be no acquisition of land by Compulsory Purchase Order.

The design of the proposed development includes development free corridors associated with the overhead power lines. During the operational phase, the site of the proposed development is expected to remain under the ownership of the Applicant, with the exception of residential units and curtilage to be sold. No significant impacts are predicted to occur in relation to land ownership during the construction or operational phases.

At present, the site of the proposed development may be accessed at a number of points via the R121 Regional Road and the L3080 Local Road, which run to the east of the site. There is currently no public access to the site. During the construction phase, site access and egress will be via the R121 Regional Road and Hollystown Road. No significant impacts are predicted in relation to access during the construction phase.

During the operational phase, the site will feature an internal road network that ties in with the existing road network at three primary vehicular access points, as follows:

- Access to Hollystown Site 2 will be via the R121 in the form of a priority junction;
- Access to Site 3 will be via an extension to the Hollystown Road, which is itself accessed via the R121; and
- Access to the Kilmartin Local Centre will be via a priority controlled access road off the Hollystown Road.

These will be supported by a network of off-road and on-road pedestrian and cycle routes, including a north-south link linking Hollystown Sites 2 & 3 and the Ratoath Road / planned GAA facilities to the north. A moderate, positive, local, long-term impact is predicted in relation to access during the operational phase.

The following classes of utilities infrastructure are present at the site of the proposed development:

- Gas supply (Gas Networks Ireland)
- Electricity Supply (Electricity Supply Boards Networks)
- Telecommunications (Eir)
- Broadband (Virgin Media)

In order to facilitate the operation of the proposed development, new utilities infrastructure will need to be put in place at the site, tying in with existing infrastructure in the area. All utilities works will be carried out in accordance with the relevant requirements of the respective service providers / authorities (i.e. Irish Water, ESB, GNI, Eir, Virgin Media and any others of relevance). These works will be carried out in a manner that is safe and which avoids or minimises interruptions to service that might affect local residents, businesses, and adjacent development. As such, no significant impacts are predicted to occur in relation to utilities infrastructure as a result of the proposed development.

During the operational phase, maintenance of utilities infrastructure on the site will be carried out in accordance with the relevant requirements of the various utilities providers / authorities. The capacity of the proposed on-site utilities infrastructure will be sufficient to provide for its operation. As such, no significant impacts on services or utilities themselves are predicted to occur during the operational phase.

While *no significant impacts* have been predicted, in order to avoid / minimise impacts insofar as practicable, a suite of best practice mitigation measures have been set out in relation to utilities infrastructure and services, as detailed in the main text of the Environmental Impact Assessment Report (Volume 2).

19 Interactions

This chapter of the Environmental Impact Assessment Report provides an overview of the key interactions identified and addressed in the foregoing chapters of the report.

It is a requirement of the EIA Directive that, not only are the impacts in respect of the individual specialist topics (hydrology, biodiversity, air quality and climate, etc.) to be addressed in the Environmental Impact Assessment Report, but so too must the interactions and inter-relationships *between* these topics be addressed. As stated in the Environmental Protection Agency's 2017 *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Draft)*:

"The interactions between impacts on different environmental factors should be addressed as relevant throughout the [Environmental Impact Assessment Report]. For example, where it is established in the Hydrology section that there will be an increase in suspended solids in discharged surface waters during construction, then the Biodiversity section should assess the effect of that on sensitive aquatic receptors. [...] It is general practice to include a matrix to show where interactions between effects on different factors have been addressed. [...] This is typically accompanied by brief text describing the interactions." (Section 3, p. 56)

A matrix of interactions is provided in **Table 19.1**, below, summarising where effects / impacts in relation to one topic (the source) have been found to directly or indirectly result in effects / impacts in relation to another topic (the receptor).

The primary interactions addressed in this Environmental Impact Assessment Report are as follows:

- Between Population & Human Health (Chapter 7; receptor) and Air Quality & Climate (Chapter 11), Noise & Vibration (Chapter 12), Landscape & Visual (Chapter 13) and Traffic & Transportation (Chapter 16) (sources).
- Between Biodiversity (Chapter 8; receptor) and Land, Soils, Geology & Hydrogeology (Chapter 9), Hydrology (Chapter 10), Air Quality & Climate (Chapter 11) and Landscape & Visual (Chapter 13) (sources).
- Between Land, Soils, Geology & Hydrogeology (Chapter 9; receptor) and Hydrology (Chapter 10; source).
- Between Hydrology (Chapter 10; receptor) and Land, Soils, Geology & Hydrogeology (Chapter 9) and Air Quality & Climate (Chapter 11) (sources).
- Between Air Quality & Climate (Chapter 11; receptor) and Land, Soils, Geology & Hydrogeology (Chapter 9) and Traffic & Transportation (Chapter 16) (sources).
- Between Noise & Vibration (Chapter 12; receptor) and Traffic & Transportation (Chapter 16; source).
- Between Landscape & Visual (Chapter 13; receptor) and Population & Human Health (Chapter 7; source).
- Between Material Assets – Waste (Chapter 17) and Land, Soils, Geology & Hydrogeology (Chapter 9; source).

The relevant consultants have liaised with each other and members of the design team, where necessary, to address potential impacts arising as result of interactions between one or more environmental topics or media. Where necessary, corresponding mitigation measures have been prescribed.

Table 19.1 Interactions matrix

<div>RECEPTOR</div> <div>SOURCE</div>	POPULATION & HUMAN HEALTH	BIODIVERSITY	LAND, SOILS, GEOLOGY & HYDROGEOLOGY	HYDROLOGY	AIR QUALITY & CLIMATE	NOISE & VIBRATION	LANDSCAPE & VISUAL	CULTURAL HERITAGE, ARCHAEOLOGY & ARCHITECTURAL	MICROCLIMATE – DAYLIGHT & SUNLIGHT	TRAFFIC & TRANSPORTATION	MATERIAL ASSETS - WASTE	MATERIAL ASSETS - SERVICES
POPULATION & HUMAN HEALTH							✓					
BIODIVERSITY												
LAND, SOILS, GEOLOGY & HYDROGEOLOGY		✓		✓	✓						✓	
HYDROLOGY		✓	✓									
AIR QUALITY & CLIMATE	✓	✓		✓								
NOISE & VIBRATION	✓											
LANDSCAPE & VISUAL	✓	✓										
CULTURAL HERITAGE, ARCHAEOLOGY & ARCHITECTURAL HERITAGE												
MICROCLIMATE – DAYLIGHT & SUNLIGHT												
TRAFFIC & TRANSPORTATION	✓				✓	✓						
MATERIAL ASSETS – WASTE												
MATERIAL ASSETS - SERVICES												

20 Cumulative Impacts

The European Commission's *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions* (1999) define cumulative impacts as "Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project" (p. iii). The Environmental Protection Agency's 2017 *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Draft)* state that:

"While a single activity may itself result in a minor impact, it may, when combined with other impacts (minor or significant), result in a cumulative impact that is collectively significant. For example, effects on traffic due to an individual industrial project may be acceptable however it may be necessary to assess the cumulative impacts taking account of traffic generated by other permitted or planned projects. It can also be prudent to also have regard to the likely future environmental loadings arising from the development of zoned lands in the immediate environs of the proposed project." (Section 3, p. 54)

The potential for cumulative impacts to occur as a result of the proposed development in combination with other proposed plans and projects in the area has been assessed in the various specialist Chapters of this Environmental Impact Assessment Report. This Chapter provides an account of the plans and projects that have been scoped in to the cumulative impact assessment.

Considering the nature and scale of the proposed development, and its likely impacts as assessed in this Environmental Impact Assessment Report, a search for projects that may have the potential to result in cumulative impacts was carried out, with the following principal sources consulted:

- Fingal County Council (FCC) Planning Portal and Map
- An Bord Pleanála (ABP) website
- Department of Housing, Local Government and Heritage EIA Portal
- *Fingal Development Plan 2017 – 2023*
- *Kilmartin Local Area Plan* (2013; as extended)

Following a review of the above sources, the following key projects in the area surrounding the proposed development were identified:

- Wellview Terrace residential development (PARTXI/002/16)
- Ladyswell Crescent Estate residential development (PARTXI/003/17)
- Avondale Place residential development (PARTXI/002/17)
- Demolition at Bristol Myers Squibb facility (FW16A/0002)
- Residential development (PARTXI/004/17)
- Bay Meadows residential development (FW15A/0009; FW16A/0191; PL06F.248736)
- Data centre development (FW17A/0025; PL06F.248544)
- Residential development (PARTXI/006/18)
- Data centre development (FW19A/0087)
- Bellingsmore residential development (FW13A/0088; PL06F.243395; FW13A/0088/E1)
- Underground ESB cables (FW19A/0177)
- Place of worship (FW16A/0181; FW19A/0212)
- Electrical substation (FW20A/0164)

- Hollywoodrath residential development (FW14A/0108; PL06F.244736; FW16A/0099; FW16A/0148; FW17A/0016; FW18A/0132; FW19A/0058; FW14A/0108/E1; FW18A/0132/E1; FW16A/0148/E1; FW16A/0099/E1; FW20A/0197)
- Lighting scheme (FW21A/0039)
- New biopharmaceutical manufacturing facility (FW15A/0043; FW17A/0097; FW21A/0060)
- Office development (FW18A/0121)
- Shopping centre development (FW18A/0117)
- Residential development (PARTXI/010/19)
- Church Fields Link Road and Cycle Network
- Electrical substation (SID/01/20)
- Hollystown Site 1 residential development (FW21A/0042)
- Planned Dublin GAA facilities
- Residential development (PARTXI/012/21)

The specialist contributors to the Environmental Impact Assessment Report have considered the potential for the above-listed plans and projects to give rise to cumulative impacts in combination with the proposed development. No significant negative cumulative impacts are expected to arise during the construction or operation of the proposed development.

21 Mitigation Measures & Monitoring

This Chapter of the Environmental Impact Assessment Report lists the mitigation measures prescribed in all of the preceding Chapters of the Environmental Impact Assessment Report – the measures required to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment – as well as all monitoring measures / programmes prescribed, for both the construction and operational phases.

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