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ENVIRONMENTAL IMPACT ASSESSMENT REPORT VOLUME II NON-TECHNICAL SUMMARY

In respect of lands at
Flemington South LRD

Prepared on behalf of
Glenveagh Homes Ltd.

December 2025

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Arboricultural Report – Charles McCorkell

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GLOSSARY OF TERMS¹

Alternatives: A description of other options that may have been considered during the conception of a project; these include alternative locations, alternative designs and alternative processes.

Baseline Scenario: The current state of environmental characteristics – including any evident trends in its status.

Competent Authority (CA): The term ‘competent authority’ means the Minister or public authority to which an EIAR is required to be submitted, i.e. the authority charged with examining an EIAR with a view to issuing a consent to develop or operate.

Development: A project involving new works [including alteration and/or demolition] or altered patterns of activity.

‘Do-nothing’ Scenario: The situation or environment which would exist if a proposed, development, project or process were not carried out. This scenario needs to take account of the continuation or change of current management regimes, as well as the continuation or change of trends currently evident in the environment.

Effect / Impact: A change resulting from the implementation of a project.

Environmental Impact Assessment – EIA: The process of examining the anticipated environmental effects of a proposed project – from consideration of environmental aspects at design stage, through consultation and preparation of an Environmental Impact Assessment Report (EIAR), evaluation of the EIAR by a competent authority, and the subsequent decision as to whether the project should be permitted to proceed, encompassing public response to that decision.

Environmental Impact Assessment Report – EIAR: A report or statement of the effects, if any, that the proposed project, if carried out, would have on the environment. EPA The Environmental Protection Agency.

Impact / Effect: A change resulting from the implementation of a project

Impact Avoidance: The modification of project decisions (about site location or design, for example) having regard to predictions about potentially significant environmental effects.

Infrastructure: The basic structure, framework or system which supports the operation of a project, for example roads and sewers, which are necessary to support development projects.

Land Use: The human activities which take place within a given area of space.

Likely Effects (or Likely Impacts): The effects that are specifically predicted to take place – based on an understanding of the interaction of the proposed project and the receiving environment. (See also Potential Effects and Residual Effects.)

Methodology: The specific approach or techniques used to analyse impacts or describe environments.

¹ Selected – From Guidelines on the information to be contained in Environmental Impact Assessment Reports – EPA, May 2022

Mitigation Measures: Measures designed to avoid, prevent or reduce impacts. These measures can mitigate impacts: \ by Avoidance When no impact is caused (often through consideration of alternatives). \ by Prevention When a potential impact is prevented by a measure to avoid the possibility of the impact occurring. \ by Reduction When an impact is lessened.

Monitoring: The observation, measurement and evaluation of environmental data to follow changes over a period of time, to assess the efficiency of control measures and to record any unforeseen effects in order to be able to undertake appropriate remedial action. This is typically a repetitive and continued process carried out during construction, operation or decommissioning of a project.

Pathway: The route by which an effect is conveyed between a source and a receptor.

Planning Application Report: Documentation that accompanies the planning application which describes the conformity of the proposal with relevant legislation and planning matters – such as the County, City or Local Area Plans – and sectoral policies, as well as social and economic activity.

Pollution: Any release to the environment which has a subsequent adverse effect on the environment or man.

Potential Effect/ Impact: The effect / impact that would occur without mitigation.

Processes: The activities which take place within a project.

Project: For the purposes of the Guidelines, the term project is used to encompass all of the various forms of development, works and activity which are subject to EIA requirements, as set out in the relevant legislation and as understood by the Directive.

Sensitivity: The potential of a receptor to be significantly affected. Significance (of impact) The importance of the outcome of the impact (or the consequence of change) for the receiving environment. Source The activity or place from which an effect originates.

LIST OF ABBREVIATIONS

AA	Appropriate Assessment
ACP	An Coimisiún Pleanála
CDP	County Development Plan
CEMP	Construction Environmental Management Plan
CSO	Central Statistics Office
DAHG	Department of Arts, Heritage and the Gealtacht
DCENR	Department of Communications, Energy and Natural Resources
DEHLG	Department of Housing, Planning and Local Government
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMP	Environmental Management Plan
EPA	Environmental Protection Agency

ESRI	Economic and Social Research Institute
FCC	Fingal County Council
FMP	Forest Management Plan
GDP	Gross Domestic Product
GSI	Geology Survey Ireland
IAA	Irish Aviation Association
IDR	Infrastructure Design Report
IEEM	Institute of Ecology and Environmental Management
IFI	Inland Fisheries Ireland
NHA/pNHA	Natural Heritage Area / proposed Natural Heritage Area
NIAH	National Archive of Architectural Heritage
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority
NPF	National Planning Framework
NTS	Non-Technical Summary
OPW	Office of Public Works
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
SAC	Special Area of Conservation
SMR	Sites and Monuments Record
SPA	Special Protection Area
SUDS	Sustainable Drainage System
TMP	Traffic Management Plan
WFD	Water Framework Directive

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DOCUMENT CONTROL SHEET

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1.0 INTRODUCTION AND METHODOLOGY

This 'Non-Technical Summary' (NTS) relates to a project for the construction of 815 no. dwellings, provision of the C-Ring Road between Flemington Lane and the Clonard Road roundabout, open space, community floorspace (c. 730 sq. m) in a 2 storey building, retail floorspace (c. 419 sq. m) at ground floor of Block F, and 2 no. creches (overall combined c. 1,060 sq. m) on an overall site area of 24.91 hectares comprising 610 no. houses, 194 apartments & 11 no. later living dwellings. The development will also include Class 1 open space in the western portion of the development (2.39 hectares) as well as a series of public open spaces throughout the site comprising 2.87 ha., car parking, cycle parking and all ancillary site development, construction, and landscaping works.

This application proposes some 2,209 sq. m of community and retail floorspace comprising 2 no. creches (1,060 sq. m combined) along with a standalone community building of 730 sq. m and a ground floor retail unit contained in Apartment Block F. This compares to 1,560 sq. m of community/retail floorspace proposed at the S32B meeting, representing a significant increase of some 41.6%.

Rory Kunz has a Masters in Environmental Resource Management and a Diploma in EIA Management (both from UCD) as well as a Masters in Town and Country Planning. In addition, Rory is a corporate member of the of the Irish Planning Institute and has over 23 years of experience of Environmental Impact Assessment and urban development.

Rory has acted as lead planning consultant on a range of high-quality complex planning applications across the country over an extended period. Rory has wide-ranging experience in the management and review of Environmental Impact Assessment Reports (EIAR) for major residential and mixed-use development and redevelopment projects.

The central purpose of the Environmental Impact Assessment Report (EIAR) is to undertake an appraisal of the likely and significant impacts on the environment of the proposed development in parallel with the project design process, and to document this process in the EIAR. This is then submitted to the competent/consent authority to enable it to assess the likely significant effects of the project on the environment. This assessment will then inform the decision as to whether the development should be permitted to proceed.

A full description of the proposed development lands together with a description of the proposed development is provided in Chapter 2 Volume II of the EIAR document.

The development will consist of the construction of 815 no. dwellings (610 no. houses, 194 apartments & 11 no. later living dwellings), a portion of the C-Ring Road, open space, community building/retail floorspace and 2 no. creches as follows:

- A) Demolition of existing single storey dwelling (c. 154 sq. m) and agricultural outbuilding (c. 366 sq. m) located to the south of Flemington Lane;
- B) Provision of portion of 'C-Ring Road' from Flemington Lane [to include junctions and ancillary footpaths, cycle paths, lighting, bus stops, boundary wall to adjoining owner, and tie in to existing roads/agricultural access points] to link into the existing R122 roundabout with vehicular access also from the Boulevard Road, Hamlet Lane, & Flemington Lane along with associated amendments to the layout of the Local Road L1130 (also known as the Clonard Road including the creation of a cul de sac arrangement to the south of the C-Ring Road); the provision of car parking spaces (1,037 no.), bicycle parking spaces (1,144 no.) and all internal roads and footpaths and bicycle and bin stores, & substations;
- C) Provision of a community pavilion (2 storeys) comprising community floorspace of c. 730 sq. m (with flexible internal spaces) along with a retail unit (c. 419 sq. m) at ground floor of apartment Block F as well as 2 no. 2 storey creches c. 530 sq. m each with ancillary parking and open space areas;

- D) 610 no. terraced, semi-detached & detached houses comprising 318 no. 2-bedroom houses (2 storey), 254 no. 3-bedroom houses (2 storey) and 38 no. 4-bedroom houses [house types B1/F4/F5 with variants] 3 storeys;
- E) 194 no. apartments in 5 no. apartment buildings (52 no. studio apartments, 87 no. 1 bedroom apartments, 51 no. 2 bedroom apartments and 4 no. 3 bedroom apartments - all apartments with terrace or balcony on elevations) as follows: Block A [4 storeys & 64 no. apartments] comprising 47 no. 1 bedroom apartments and 17 no. 2 bedroom apartments; Block C, [Part 3-4 storeys & 18 no. apartments] comprising 10 no. 1 bedroom apartments, 6 no. 2 bedroom apartments & 2 no. 3 bedroom apartments; Block F [Part 4-5 storeys & 48 no. apartments] comprising 36 no. 1 bedroom apartments and 12 no. 2 bedroom apartments; Block G [Part 3-4 storeys & 40 no. apartments]; comprising 30 no. 1 bedroom apartments and 10 no. 2 bedroom apartments; Block H [part 3-4 storeys & 24 no. apartments] comprising 16 no. 1 bedroom apartments, 6 no. 2 bedroom apartments & 2 no. 3 bedroom apartments;
- F) 11 no. single storey 2 bedroom later living houses with associated communal open space;
- G) 5.26 hectares of open space comprising Class 1 Open Space (c. 2.39 hectares in the western separate parcel of land), Public open space c.2.87 hectares, hard and soft landscaping (including public lighting & boundary treatment, ESB substations, bicycle and bin stores) and communal/semi-private open space for the proposed apartment units;
- H) Provision of surface water attenuation measures, connection to water supply, provision of foul drainage infrastructure (and Uisce Eireann diversion) to Uisce Eireann specifications and all ancillary site development, construction, and landscaping works including reprofiling of the site where required;
- I) The proposals will replace the previously permitted LRD under planning reg. ref. LRD0006/S3 & ACP Ref: 319343-24.

1.1 SCREENING – REQUIREMENT FOR EIA

Screening is the term used to describe the process for determining whether a proposed development requires an EIA by reference to mandatory legislative threshold requirements or by reference to the type and scale of the proposed development and the significance or the environmental sensitivity of the receiving baseline environment.

Projects needing environmental impact assessment are listed in Schedule 5 of the Planning and Development Regulations 2001 (as amended). Schedule 5 (Part 2) of the Planning & Development Regulations 2001 (as amended) set mandatory thresholds for each project class.

Paragraph 10((b)(i) refers to Infrastructure projects comprising the construction of more than 500 dwelling units. The proposed development which comprises 815 no. dwellings is above the mandatory threshold.

Paragraph 10(b)(iv) refers to 'Urban development which would involve an area greater than 2 hectares in the case of business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.' The site is c. 24.91 hectares which is above the mandatory threshold for EIA.

Paragraph 13 (a) refers to changes and extensions to development already authorised, which would result in an increase of 25% or 50 % of the appropriate threshold whichever is greater, in respect of a previous EIAR development.

The EIAR provides information on the receiving environment and assesses the likely significant effects of the project and proposes mitigation measures to avoid or reduce these effects. The function of the EIAR is to provide information to allow the competent authority to conduct the Environmental Impact Assessment (EIA) of the proposed development.

1.2 PURPOSE OF THIS EIAR

The objective of this EIAR is to identify and predict the likely environmental impacts of the proposed development; to describe the means and extent by which they can be reduced or ameliorated; to interpret and communicate information about the likely impacts; and to provide an input into the decision making and planning process.

The EIAR is the primary element of the Environmental Impact Assessment (EIA) process and is recognised as a key mechanism in promoting sustainable development, identifying environmental issues, and in ensuring that such issues are properly addressed within the capacity of the planning system.

1.3 INFORMATION TO BE CONTAINED IN A NON-TECHNICAL SUMMARY

This Non-Technical Summary (NTS) has been prepared in accordance with *inter alia* the requirements of the EU 2014 EIA Directive, Planning and Development Acts 2000 (as amended) as well as the Planning and Development Regulations, 2001, as amended (in particular by the European Union (Planning & Development) (Environmental Impact Assessment) Regulations 2018 (as amended)).

1.4 EIA PROCESS OVERVIEW

One of the main purposes of the EIA process is to identify the likely significant impacts on the human environment, the natural environment and on cultural heritage associated with the proposed development, and to determine how to eliminate or minimise these impacts. The EIAR summarises the environmental information collected during the impact assessment of the proposed development.

A new definition of environmental impact assessment is now contained in Section 170A of the Planning and Development Act, 2000, as amended which reflects to the process as described under Article 1(2)(g) 4 of Directive 2014/52/EU and goes on to say that it includes:

(i) an examination, analysis and evaluation, carried out by the planning authority or the Board, as the case may be, in accordance with this Part and regulations made thereunder, that identifies, describes and assesses, in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of the proposed development on the following:

- (I) population and human health;*
- (II) biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive;*
- (III) land, soil, water, air and climate;*
- (IV) material assets, cultural heritage and the landscape;*
- (V) the interaction between the factors mentioned in clauses (I) to (IV), and*

(ii) as regards the factors mentioned in subparagraph (i)(I) to (V), such examination, analysis and evaluation of the expected direct and indirect significant effects on the environment derived from the vulnerability of the proposed development to risks of major accidents or disasters, or both major accidents and disasters, that are relevant to that development;

Several interacting steps typify are involve in the various stages of the EIA process, which may be referred to in outline as including:

- Screening;
- Scoping;
- Preparation of EIA Report;
- The examination by the Competent Authority (CA) of the information presented in the environmental impact assessment report;

Screening: Screening is the term used to describe the process for determining whether a proposed development requires an EIA.

Scoping: This stage firstly identifies the extent of the proposed development and associated site, which will be assessed as part of the EIA process, and secondly, it identifies the environmental issues likely to be important during the course of completing the EIA process through consultation with statutory and non-statutory stakeholders. Where relevant, scoping requests were issued, and the responses received have been considered as part of the compilation of the EIAR. The content of the EIAR has been informed by national guidelines, guidelines issued by the European Commission and other policy documents which are set out at Section 1.4 of the EIAR. In addition, pre-planning meetings with the various departments of Fingal County Council and the previous phases at Ladywell all informed the EIAR.

Preparation of EIAR Report: The main elements in the preparation of an EIA Report relate to the consideration of alternatives, project description, description of the receiving environment, identification and assessment of impacts, monitoring and mitigation proposals.

The examination by the CA of the information presented in the environmental impact assessment report. The planning authority and An Bord Pleanála must consider each application for development consent on its own merits, taking into account all material considerations, including the reasoned conclusion in respect of EIA, before making its decision to grant, with or without conditions, or to refuse consent.

1.5 FORMAT AND STRUCTURE OF THE EIAR

1.5.1 EIAR STRUCTURE

The structure of the EIAR is laid out in the preface of each volume for clarity. It consists of three volumes as follows:

- Volume I: Non-Technical Summary (this document).
- Volume II: Environmental Impact Assessment Report.
- Volume III: Appendices.

Volume II is the main volume of the EIAR. It provides information on the location and scale of the proposed development, details on design and impacts on the environment (both positive and negative) as a result of the proposed development. Each of the environmental aspects as listed below are examined in terms of the existing or baseline environment, identification of potential construction and operational stage impacts and where necessary proposed mitigation measures are identified. Volume III: Technical Appendices (Volume III contains specialists' technical data and other related reports).

1.5.2 EIAR VOLUME II STRUCTURE

The preparation of an EIAR requires the assimilation, co-ordination and presentation of a wide range of relevant information in order to allow for the overall assessment of a proposed development. For clarity and to allow for ease of presentation and consistency when considering the various elements of the proposed development, a systematic structure is used for the main body of this EIAR document. The structure used in this EIAR document is a "*Grouped Format structure*". This structure examines each environmental topic in a separate chapter of this EIAR document. The structure of the EIAR Volume II document is set out in Table 1.1 below.

Table 1.1: Methodology Employed to Evaluate Environmental Topic

Chapter Structure
Introduction:
Study Methodology:
The Existing Receiving Environment (Baseline Situation):
Do Nothing Scenario:
Characteristics of the Proposed Development:

Potential Impact of the Proposed Development:
Avoidance, Remedial and Mitigation Measures: Avoidance:
Predicted Impacts of the Proposed Development (Assessing the significance of residual effects, taking account of any mitigation measures):
Monitoring:
Reinstatement:
Interactions
Cumulative Impacts:
Difficulties Encountered in Compiling:
References.

1.6 EIAR PROJECT TEAM

The EIAR was prepared by a study team led by John Spain Associates, who were responsible for the overall management and co-ordination of the document. The EIAR team is set out in Chapter 1 of Volume II of the EIAR.

1.7 AVAILABILITY OF EIAR DOC

A copy of this EIAR document and Non-Technical Summary of the EIAR document is available for purchase at the offices of Fingal County Council (Planning Authority) at a fee not exceeding the reasonable cost of reproducing the document. It can also be viewed on the LRD website: www.FlemingtonsouthLRD.ie set up by the applicant.

1.8 IMPARTIALITY

This EIAR document has been prepared with reference to a standardised methodology which is universally accepted and acknowledged. Recognised and experienced environmental specialists have been used throughout the EIA process to ensure the EIAR document produced is robust, impartial and objective.

1.9 STATEMENT OF DIFFICULTIES ENCOUNTERED

No particular difficulties, such as technical deficiencies or lack of knowledge, were encountered in compiling any of the specified information contained in this statement, such that that the prediction of impacts has not been possible. Where any specific difficulties were encountered these are outlined in the relevant chapter of the EIAR.

1.10 EIA QUALITY CONTROL AND REVIEW

John Spain Associates is committed to consistently monitoring the quality of EIAR documents prepared both in draft form and before they are finalised, published and submitted to the appropriate competent authority taking into account latest best-practice procedure, legislation and policy.

1.11 ERRORS

While every effort has been made to ensure that the content of this EIAR document is error free and consistent there may be instances in this document where typographical errors and/or minor inconsistencies do occur. These typographical errors and/or minor inconsistencies are unlikely to have any material impact on the overall findings and assessment contained in this EIAR.

2.0 DESCRIPTION OF THE PROJECT AND CONSIDERATION OF ALTERNATIVES

2.1 DESCRIPTION OF THE LOCATION OF THE PROJECT

The subject lands comprise 2 no. parcels of land extending to an area of 24.91 hectares gross c. 17.30 ha (net). The main parcel consists of an irregular shaped site immediately west of an established housing area at Flemington Park in the north and Taylor's Hill to the south, within the townlands of Flemingtown and Clonard or Folkstown Great. The site is generally greenfield site comprising all or part of several fields. The western section of the site fronts Clonard Road and is adjacent to an existing playing field.

Figure 2.1: Site Location with approximate extent of site outlined in red



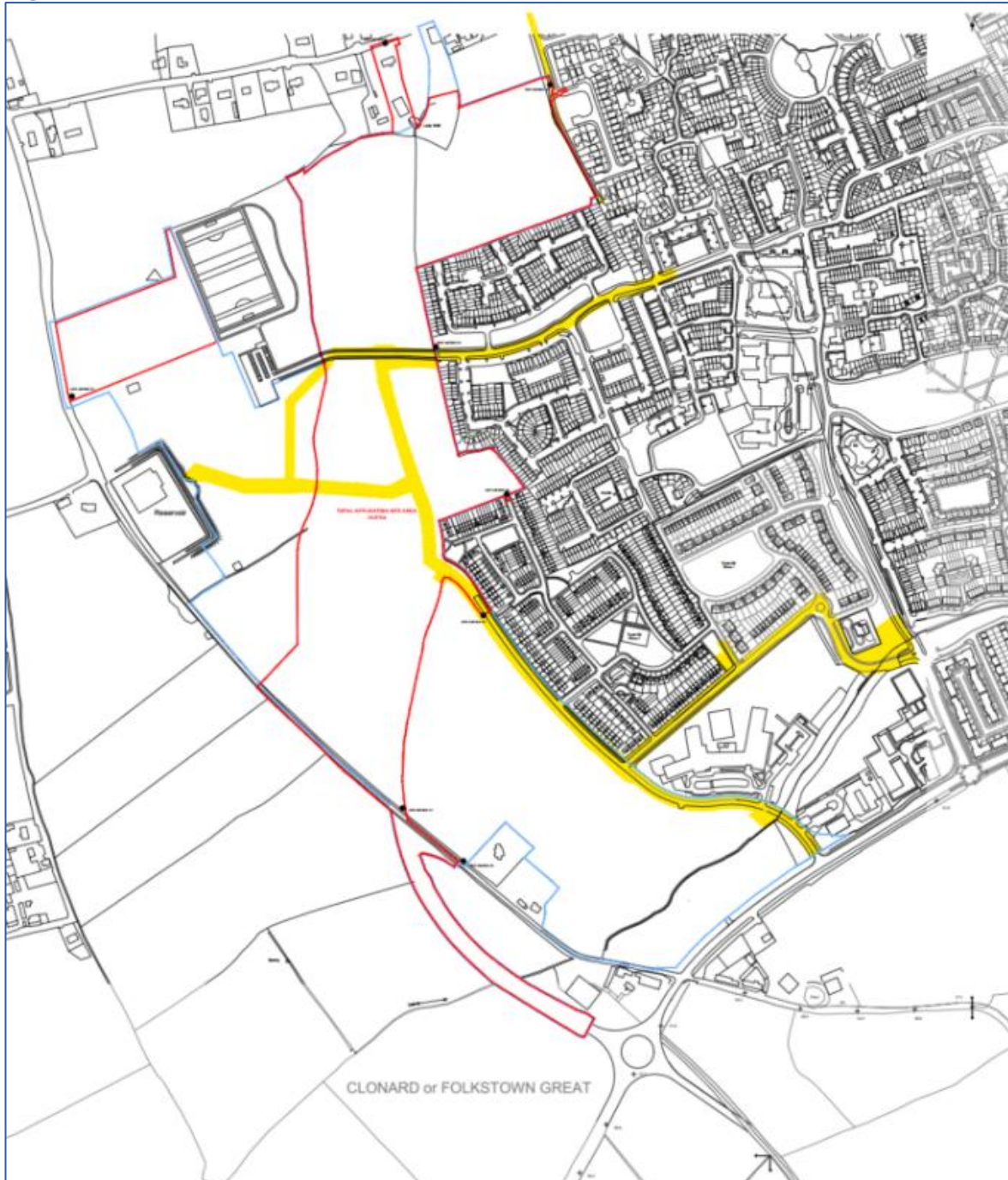
Source: Altamar

There is existing housing all along the eastern boundary and a residential development (Folkstown Park) is under construction adjacent to the southeast. There is generally agricultural land to the north and south/southwest of this parcel. The parcel is divided by a road across the site which connects Hamlet Lane to the east to a newly developed car park/sports field/park adjacent to the west.

The second parcel of land is located c. 70m to the west of the main parcel of land fronting onto the Clonard Road (L1130 Local Road) with agricultural land to the north and south.

The site is located c. 600 metres from Castle Mill Shopping Centre and c. 1.5 km from Millfield Shopping Centre both of which provide a range of services and include a supermarket. The site is also c. 2.4 km from Balbriggan town centre. With respect to public transport, the subject site is located 2.5 km from Balbriggan Train Station which provides frequent services into Dublin City as well as intercity services along the east coast. Balbriggan is also well connected to Dublin by bus services operated by Bus Éireann and Dublin Bus.

Figure 2.2: Site Location Map



Source: DCA Architects

2.1.1 TOPOGRAPHY

The topography is relatively consistent with the site generally falling in elevation from northeast to southwest and characterized by minor localized undulations. The elevation falls from approximately 47m AOD (Above Ordnance Datum) to approximately 42m AOD from northeast to southwest. A portion of the central western section of the site located adjacent to the Clonard Road lies on elevated land at approximately 66m AOD.

2.1.2 ADJOINING/EXISTING LAND USES

The site is currently a greenfield site characterised with an agricultural function, with existing residential to the east and newly under-construction residential development to the south. To the east is agricultural lands, while to the north are residential dwellings along Flemington Lane. The existing land use is a mixture of agricultural and formerly agricultural.

2.1.3 EXISTING VEGETATION

The overall site contains a number of existing vegetation types as set out in Chapter 4 (Biodiversity chapter) of the EIAR. A number of arable crop fields are located throughout the site. Opportunistic flora species were present. Species noted included creeping buttercup, rampion fumitory, corn marigold, thistles, dandelion, docks, and common vetch. No species of conservation importance were noted. In addition, improved agricultural grassland was recorded. This habitat is located to the south of the subject site. This habitat comprises of species-poor grassland with a short sward resulting from grazing practices. A pocket of Recolonising Bare Ground has developed in the southeastern portion of the site in previously cleared ground. In this area, previously grown crops have not been replanted and therefore consists of an area of Recolonising Bare Ground. Throughout the centre and northern portions of the site, Dry meadows and grassy verges habitats have developed from land previously utilised for arable crops.

2.2 DESCRIPTION OF THE PHYSICAL CHARACTERISTICS OF THE WHOLE PROPOSED DEVELOPMENT

2.3 MAIN CHARACTERISTICS OF THE OPERATIONAL PHASE OF THE PROJECT

2.3.1 DEVELOPMENT PROPOSALS SUMMARY

The development will consist of the construction of 815 no. dwellings (610 no. houses, 194 apartments & 11 no. later living dwellings), a portion of the C-Ring Road, open space, community building/retail floorspace and 2 no. creches as follows:

- A) Demolition of existing single storey dwelling (c. 154 sq. m) and agricultural outbuilding (c. 366 sq. m) located to the south of Flemington Lane;
- B) Provision of portion of 'C-Ring Road' from Flemington Lane [to include junctions and ancillary footpaths, cycle paths, lighting, bus stops and tie in to existing roads] to link into the existing R122 roundabout with vehicular access also from the Boulevard Road, Hamlet Lane, & Flemington Lane along with associated amendments to the layout of the Local Road L1130 (also known as the Clonard Road including the creation of a cul de sac arrangement to the south of the C-Ring Road); the provision of car parking spaces (1,037 no.), bicycle parking spaces (1,144 no.) and all internal roads and footpaths and bicycle and bin stores, & substations;
- C) Provision of a community pavilion (2 storeys) comprising community floorspace of c. 730 sq. m (with flexible internal spaces) along with a retail unit (c. 419 sq. m) at ground floor of apartment block F as well as 2 no. 2 storey creches c. 530 sq. m each with ancillary parking and open space areas;
- D) 610 no. terraced, semi-detached & detached houses comprising 318 no. 2-bedroom houses (2 storey), 254 no. 3-bedroom houses (2 storey) and 38 no. 4-bedroom houses [house types B1/F4/F5 with variants] 3 storeys;
- E) 194 no. apartments in 5 no. apartment buildings (52 no. studio apartments, 87 no. 1 bedroom apartments, 51 no. 2 bedroom apartments and 4 no. 3 bedroom apartments - all apartments with

terrace or balcony on elevations) as follows: Block A [4 storeys & 64 no. apartments] comprising 47 no. 1 bedroom apartments and 17 no. 2 bedroom apartments; Block C, [Part 3-4 storeys & 18 no. apartments] comprising 10 no. 1 bedroom apartments, 6 no. 2 bedroom apartments & 2 no. 3 bedroom apartments; Block F [Part 4-5 storeys & 48 no. apartments] comprising 36 no. 1 bedroom apartments and 12 no. 2 bedroom apartments; Block G [Part 3-4 storeys & 40 no. apartments], comprising 30 no. 1 bedroom apartments and 10 no. 2 bedroom apartments; Block H [part 3-4 storeys & 24 no. apartments] comprising 16 no. 1 bedroom apartments, 6 no. 2 bedroom apartments & 2 no. 3 bedroom apartments;

- F) 11 no. single storey 2 bedroom later living houses with associated communal open space;
- G) Class 1 Open Space (c. 2.39 hectares in the western separate parcel of land), Public open space c.2.87 hectares, hard and soft landscaping (including public lighting & boundary treatment) and communal/semi-private open space for the proposed apartment units;
- H) Provision of surface water attenuation measures, connection to water supply, provision of foul drainage infrastructure (and Uisce Eireann diversion) to Uisce Eireann specifications and all ancillary site development, construction, and landscaping works including reprofiling of the site where required;
- I) The proposals will replace the previously permitted LRD under planning reg. ref. LRD0006/S3 & ACP Ref: 319343-24.

The total gross site area extends to 24.91 ha, and the net site area extends to 17.3 hectares (net).

The figure below illustrates the site layout plan for the subject lands:

This application proposes some 2,209 sq. m of community and retail floorspace comprising 2 no. creches (1,060 sq. m combined) along with a standalone community building of 730 sq. m and a ground floor retail unit contained in Apartment Block F. This compares to 1,560 sq. m of community/retail floorspace proposed at the S32B meeting, representing a significant increase of some 41.6%.

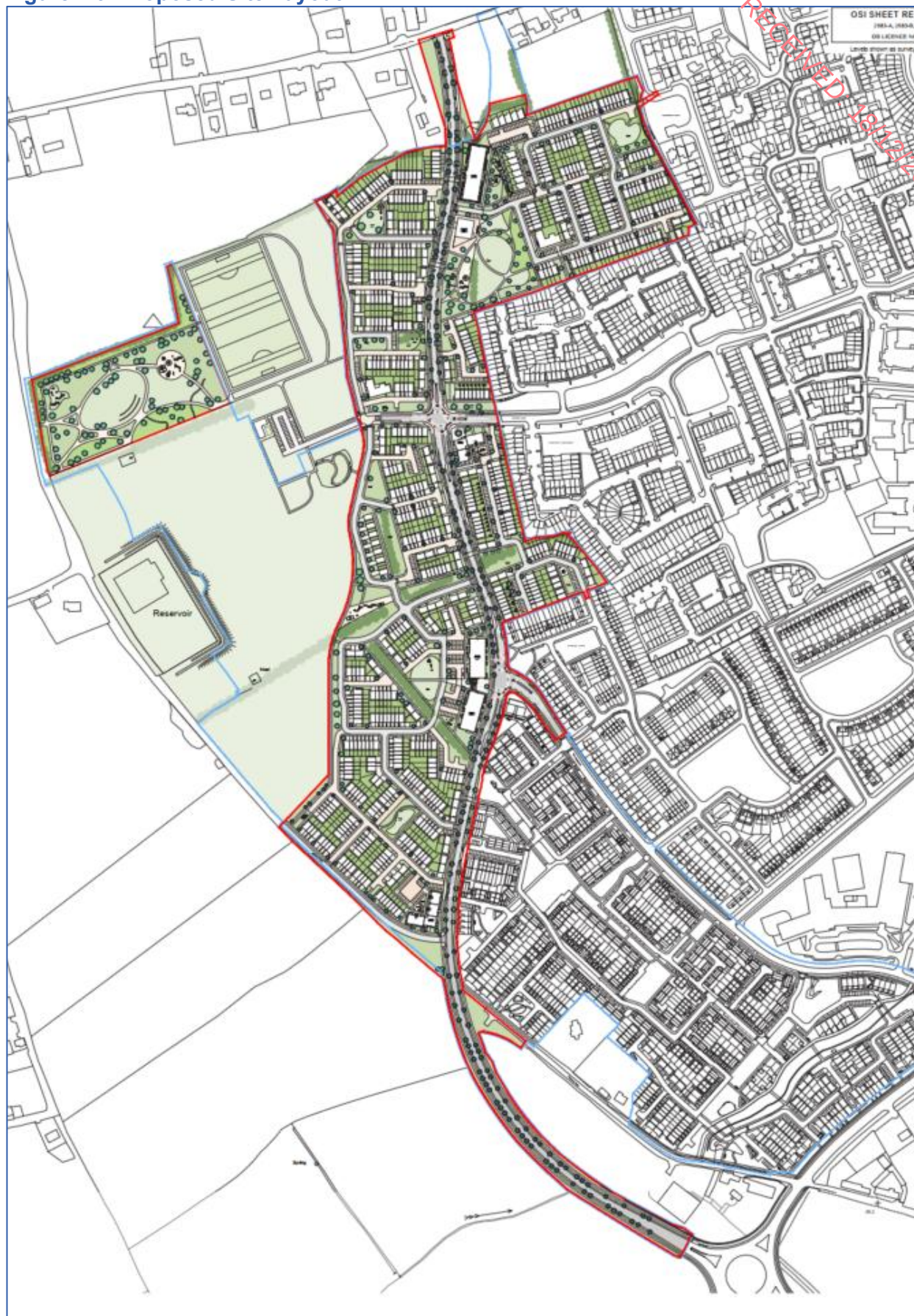
Figure 2.3: Proposed Site Layout

Table 2.1: Summary of Key Site Statistics

Statistic	Detail
Site Area (overall)	24.91 hectares (gross) 17.30 Net
Land Use Zonings	RA – Residential Area” Objective: Provide for new residential communities subject to the provision of the necessary social and physical infrastructure. OS - Open Space’ Objective: ‘Preserve and provide for open space and recreational amenities’. RU – Rural ‘ Objective: 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.’
No. of Dwellings	815 (610 houses, 194 apartments & 11 no. later living dwellings)
Overall Mix	1-bed 139 (17%) 2 bed 380 (46%) 3 bed 258 (32%) 4 bed 38 (5%)
Universally Accessible Units	243 no. (30%) Apartments and Houses. 11% of the 621 no. houses proposed (including 11 no. later living units)
Density	47.1 dph (net)
Open Space	2.87 hectares (16.58% of site area) on RA zoned lands 2.39 hectares of Class 1 Open Space on OS zoned lands
Communal Open Space	2,383 sq. m provided (1,036 sq. m required)
Play equipment areas	3,260 sq. m of play equipment areas
Building Heights	2 & 3 storey houses, 4/5 storeys apartment buildings
Creches	2 no. standalone 2 storey creches (c. 530 sq. m)
Commercial/Retail Unit	419 sq. m (at ground floor of Community mixed use building)
Community Facilities	1 no. 2 storey community pavilion (730 sq. m)
Car Parking	1,037 no. spaces
Cycle Parking	1,144 no.
Site Coverage (Gross)	12.5%
Site Coverage (Net)	18.0%
Plot Ratio (Gross)	0.27
Plot Ratio (Net)	0.39
Total Floor Area	66,784 sq. m

The proposed residential residential breakdown of the 815 no. units is shown in the below table. The proposal provides for a mix of semi-detached, detached, terrace and end of terrace houses, with apartments. The units range in size and include apartments and 2, 3 and 4-bedroom houses. The unit mix consists of 604 houses, 204 apartments & 11 no. later living dwellings.

Table 2.2: Mix of Dwellings at Flemington South LRD

Typology	Studio	1-beds	2-beds	3-beds	4-beds	Total	Total (%)
Houses			318	254	38	610	74.8%
Apartments	52	87	51	4		194	23.8%
Later Living Units			11			11	1.3%
Total	52	87	380	258	38	815	
Total (%)	6.4%	10.7%	46.6%	31.7%	4.7%		

Source: Doran Cray Architects

2.3.2 HOUSES

It is proposed to provide 610 no. terraced and semi-detached houses comprising 318 no. 2-bedroom houses (2 storey), 254 no. 3-bedroom houses (2 storey) and 38 no. 4-bedroom houses [house types with variants] 3 storeys, all located within different character areas.

There are 9 no. house types as follows:

House Type B1 (4-Bed) End of Terrace	9	152	1,368
House Type D1 (3-Bed) Semi-D/ End of Terrace	126	92	11,592
House Type E1 (2-Bed) Terraced	318	73	23,214
House Type F1 (3-Bed) Semi-D/ End of Terrace	59	103	6,077
House Type F2 (3-Bed) Semi-D/ End of Terrace	3	104	312
House Type F3 (3-Bed) Semi-D / End of T / Terraced	59	104	6,136
House Type F4 (4-Bed) End of Terrace	6	154	924
House Type F5 (4-Bed) Detached / Semi-D	23	156	3,588
House Type G (3-Bed) Detached	7	92	644

Figure 2.4: CGI Houses Character Area 1



Source: 3D Design Bureau

2.3.3 APARTMENT BUILDINGS

It is proposed to provide 194 no. apartments (52 no. studio apartments, 87 no. 1 bedroom apartments, 51 no. 2 bedroom apartments and 4 no. 3 bedroom apartments - all apartments with terrace or balcony on elevations) in 5 no. apartment buildings located at strategic nodes along the proposed C-Ring Road between Flemington Lane and the Boulevard Road.

Of the 152 apartments, 22 are dual aspect across blocks A, F & G. All walk-ups/own door units are dual aspect (42). Therefore 64 of 194 are dual aspect - 33%.

2.3.3.1 Apartment Block A

Apartment Block A is located at a prominent location adjacent to the largest area of Open Space within the development and together act as a gateway into the development on approach along the proposed C-Ring from the north.

Block A [4 storeys & 64 no. apartments] will consist of 47 no. 1 bedroom apartments and 17 no. 2 bedroom apartments.

Figure 2.5: Apartment Building A



Source: DCA

Figure 2.6: Block A & Community Building Elevation (CGI)

Source: 3D Design Bureau

It is noted that a bike store and bin stores are provided enclosed within the footprint of the building at ground floor level, providing a high-quality storage solution for future residents.

Figure 2.7: Block A Ground Floor

Source: DCA

2.3.3.2 Apartment Blocks F and G

Two 3-4 storey apartment blocks (F&G) are proposed on the western edge of the junction between the proposed C-Ring Road and the existing Boulevard create a focal point at the centre of the development with the permitted mixed-use building to the east.

Figure 2.8: Apartment Buildings F and G

Source: ParkhooD

Block F is Part 4-5 storeys & 48 no. apartments comprising 36 no. 1 bedroom apartments and 12 no. 2 bedroom apartments. At lower ground floor level, it is proposed to provide a retail unit of c. 419 sq. m.

Block G [Part 3-4 storeys & 40 no. apartments]; comprising 30 no. 1 bedroom apartments and 10 no. 2 bedroom apartments.

2.3.3.3 Apartment Buildings C & H 'Walk up/Own Door'

Apartment building C is 3 storeys and is located to the south of the internal road between Hamlet Lane and the Class 1 open space to the west and comprises 18 no. apartments consisting of 10 no. 1 bedroom apartments, 6 no. 2 bedroom apartments and 2 no. 3 bedroom apartments which will all have own door access. Communal open space is provided to the rear, providing a marker/node within the scheme at the intersection of the C-Ring Road and the east west road.

For example, Blocks B and C, front onto the extension to Hamlet Lane, providing a strong frontage along this key route between the existing development to the east and the Class 1 open space to the west.

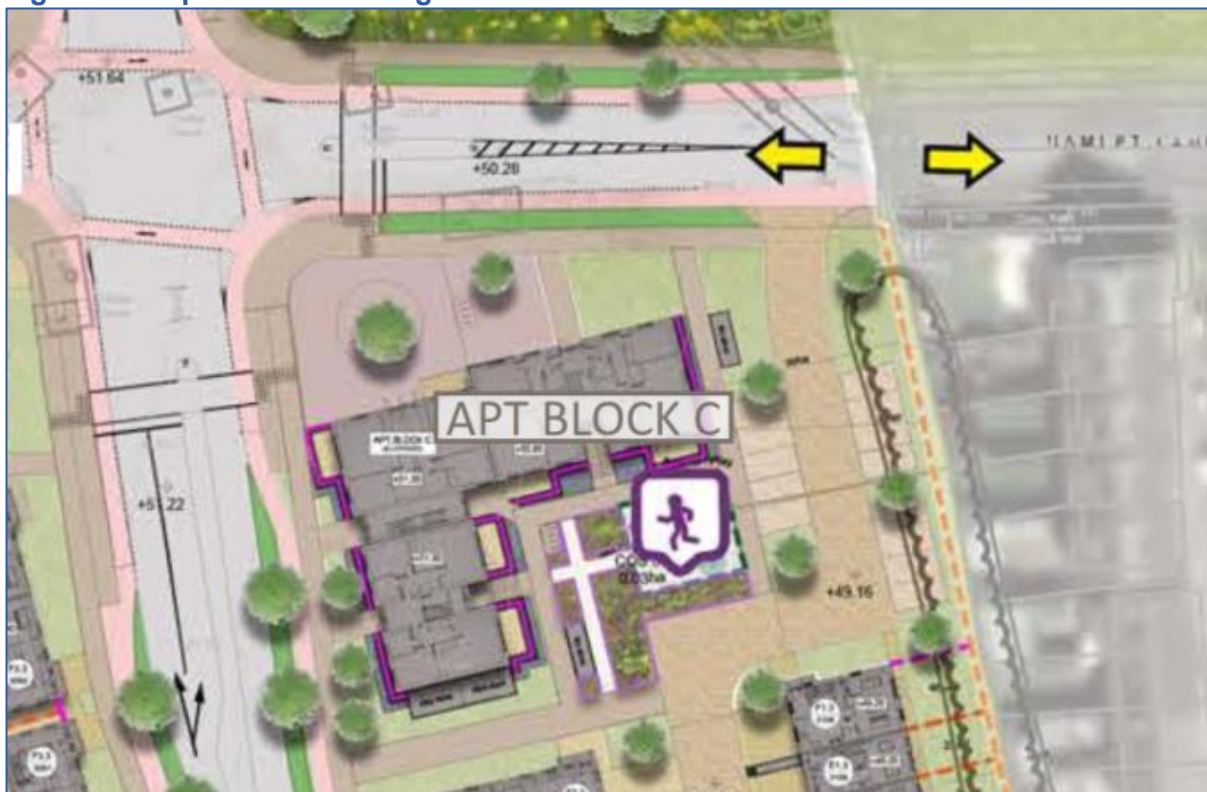
Universal access

The proposed walk-up units provide an accessible 2-bed apartment which is accessed at grade on the ground floor. The 2-bed apartment has been designed to meet the needs of the occupants regardless of their age, size, ability or disability.

Wide corridors and doors facilitate comfortable and unimpeded movement between spaces. The open plan living area allows ease of movement for everyone, whether they are sitting down, accessing shelves, switching on the TV, or opening windows and doors.

The units are provided with an intercom with video link which allows residents to identify callers before they let them into the building.

Figure 2.9: Apartment Building C



Source: Parkhoo

Apartment Building H is 3 no. storeys and comprises 24 own door/walk up apartments, consisting of 16 no. 1 bedroom apartments, 6 no. 2 bedroom apartments and 2 no. 3 bedroom apartments, located strategically at the junction of the C-Ring road and local road, providing an important marker for the scheme. The

Figure 2.10: Apartment Building H



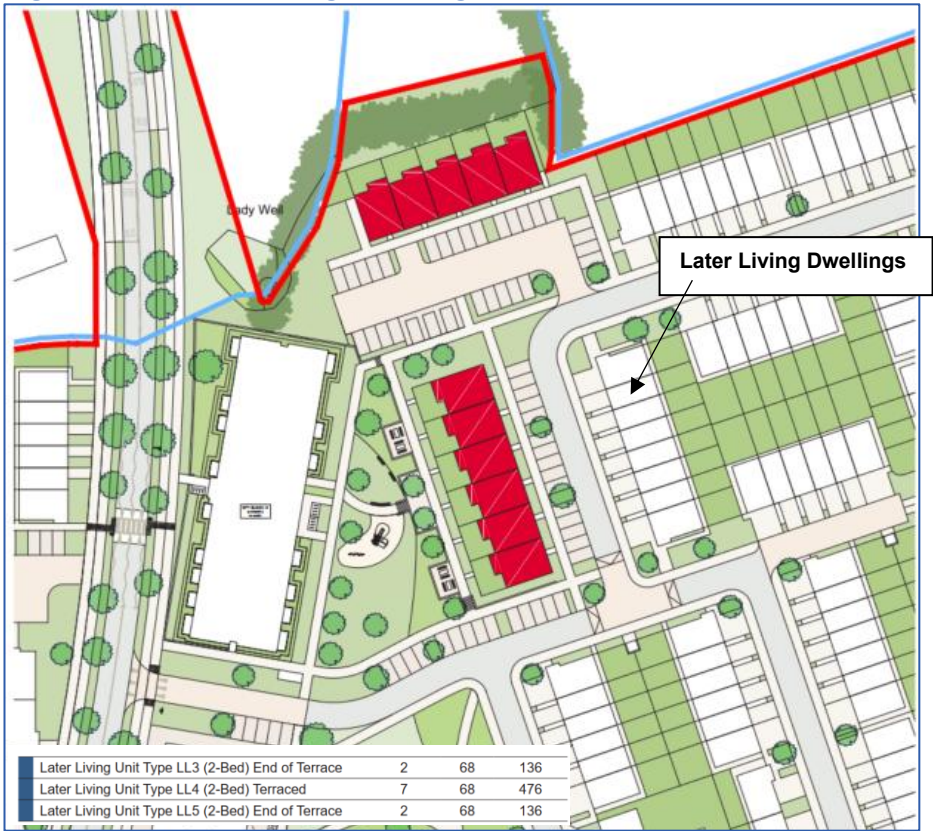
Source: Parkhoo

2.3.4 LATER LIVING DWELLINGS

In the northern part of the site, it is proposed to provide 11 no. 2 bedroom later living units with associated communal open space adjacent. The units front onto a large area of Communal Open Space which is shared with Apartment Block A to the west. Benches are positioned around the Communal Open Space for interaction.

All of single-storey later living units are dual fronted with the exception of end-of-terrace units which have a triple aspect. This ensures that streets, areas of open space and parking courtyards are well overlooked which promotes a feeling of safety through passive surveillance and a sense of community within the overall development.

Figure 2.11: Later Living Dwellings



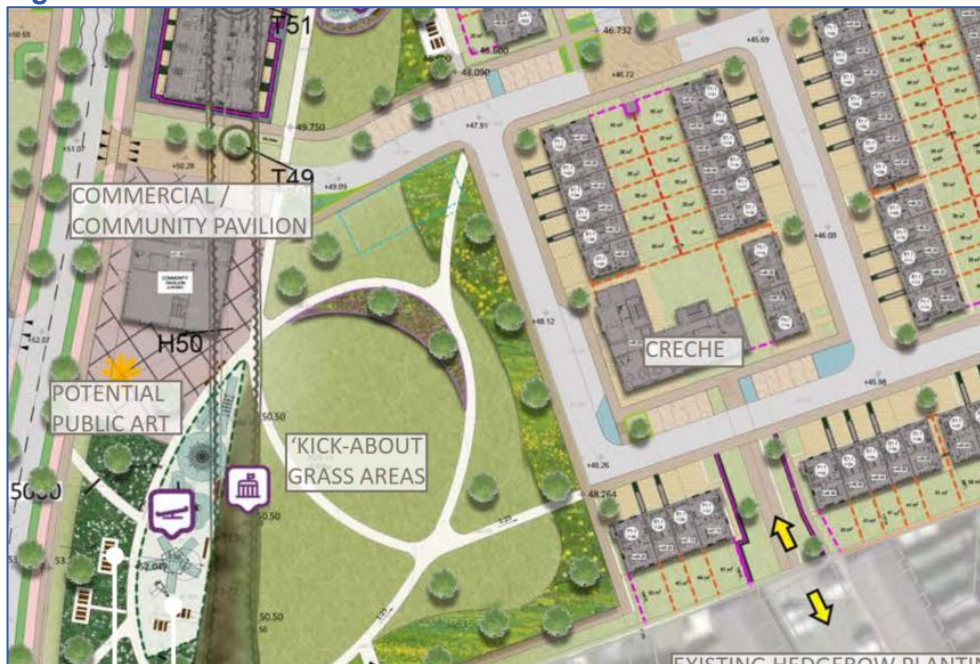
Source: DCA

2.4 CRECHE PROVISION

It is proposed to provide 2 no. 2 storey creches both of which will be c. 530 sq. m. in size, which will complement the adjoining permitted creche (c. 1,025 sqm) under phase 2D, which is located immediately to the east of the subject site in Taylor Hill which can also cater for residents located in the southern part of this LRD as there is spare capacity available for this creche even taking into account the previous phases in Taylors Hill.

Figure 2.12: Proposed Creche Design

Source: DCA

Figure 2.13: Northern Creche Location

Source: Parkhoo

The location of the creches is such that they will provide easy access not only within the scheme but also due to their location easy access to the adjoining areas to the east by virtue of the high degree of permeability in this western area of Balbriggan. From the Social Infrastructure Assessment (prepared by JSA), it is apparent that the majority of the creches in the western area are located further to the east adjacent to the town centre area. It is considered that the location of the proposed creches will complement the location of Phase 2D creche providing an excellent distribution of creche provision in the western area of Balbriggan, within an easy walking distance to existing and the new residential communities.

Figure 2.14: Central Creche Location



Source: Parkhoo

Excluding the 1 bed units and later living units within the scheme, the overall development has the potential to require some 178 spaces using the relatively conservative 2001 Childcare Guidelines. The actual demand may be substantially less as set out in the JSA Social Infrastructure Assessment.

Together, both creches provide 212 childcare spaces at the following split which is based on Schedule of the 'Child Care Act 1991 (Early Years Services) Regulations' (2016):

0-1 Year	32 spaces
1-2 Year	60 spaces
2-3 Year	72 spaces
3-6 Year	48 spaces
Total	212 spaces

It should be noted that the split above is indicative and subject to the final operator requirements.

2.5 COMMUNITY FLOORSPACE

This application proposes some 2,209 sq. m of community and retail floorspace comprising 2 no. creches (1,060 sq. m combined) along with a standalone community building of 730 sq. m and a ground floor retail unit contained in Apartment Block F. This compares to 1,560 sq. m of community/retail floorspace proposed at the S32B meeting, representing a significant increase of some 41.6%.

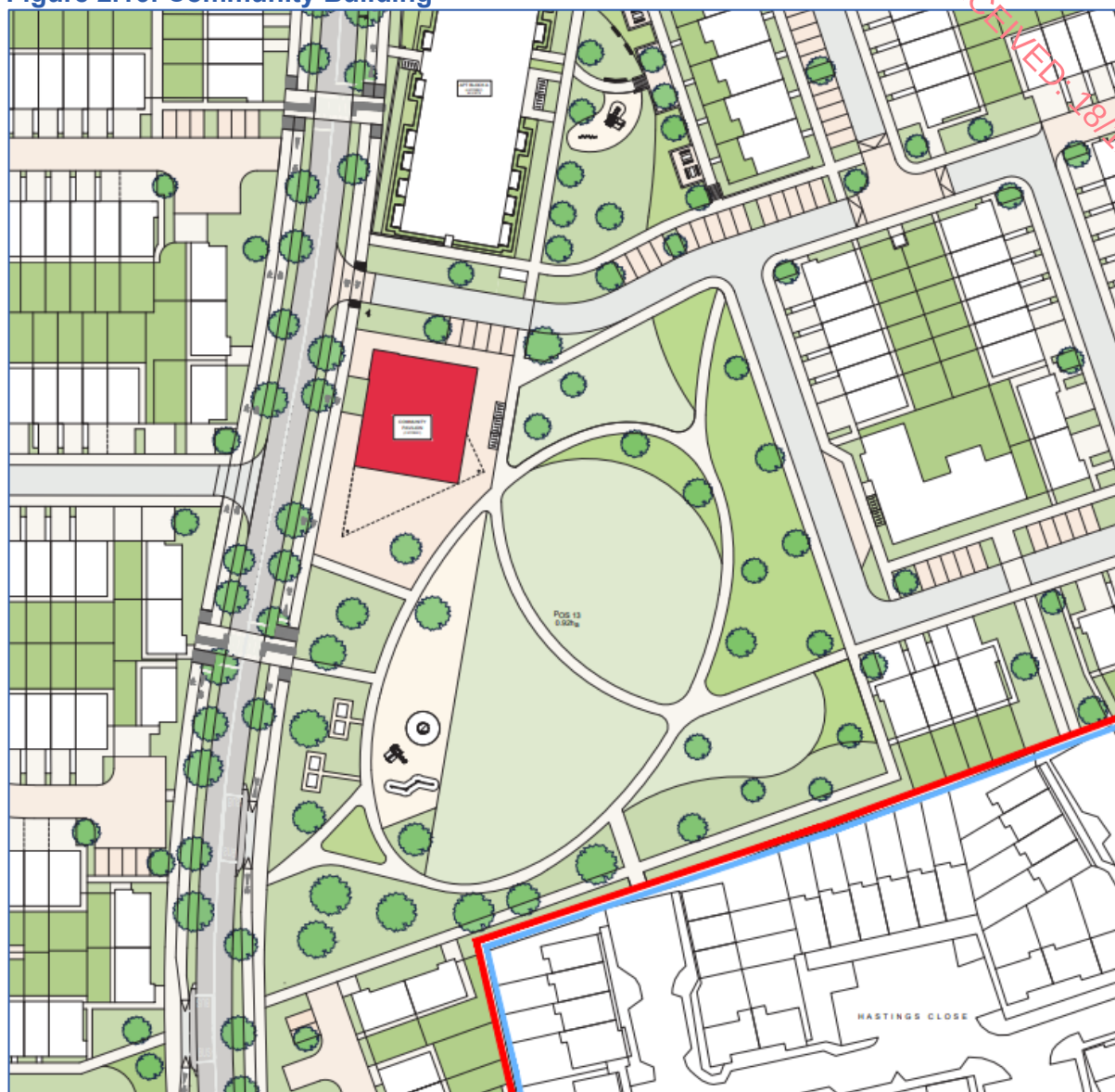
Figure 2.15: CGI Community Building (LHS)



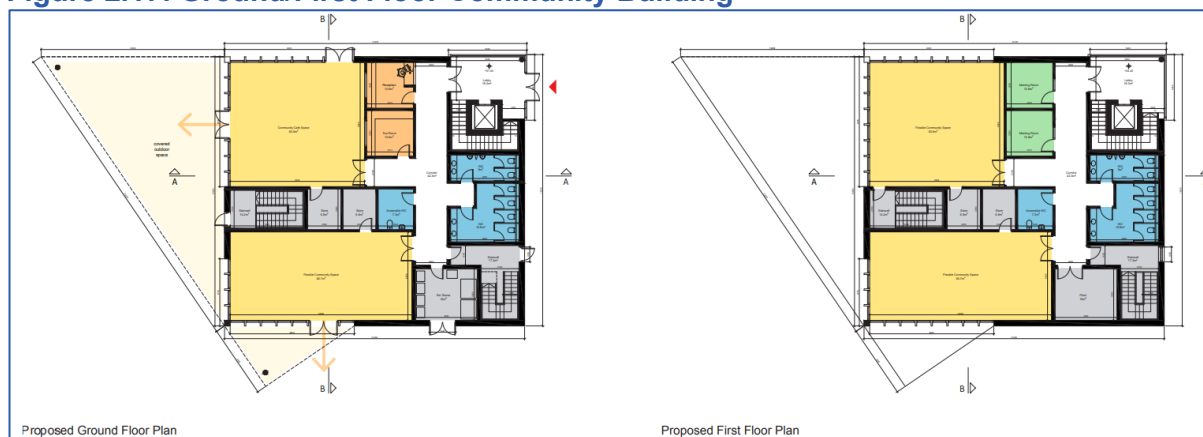
Source: 3DDB

It is proposed to provide a 2-storey community pavilion located in the northern part of the subject site which will anchor the northern open space as well as being close to the later living dwellings/apartment building in that part of the site. It will comprise c. 730 sq. m. with a series of flexible meeting rooms and spaces.

The building will include a café area, meeting rooms and a hall space along with WC facilities. The building is well located adjacent to the open space and also the later living units providing a 'park hub' of activity and interaction.

Figure 2.16: Community Building

Source: DCA

Figure 2.17: Ground/First Floor Community Building

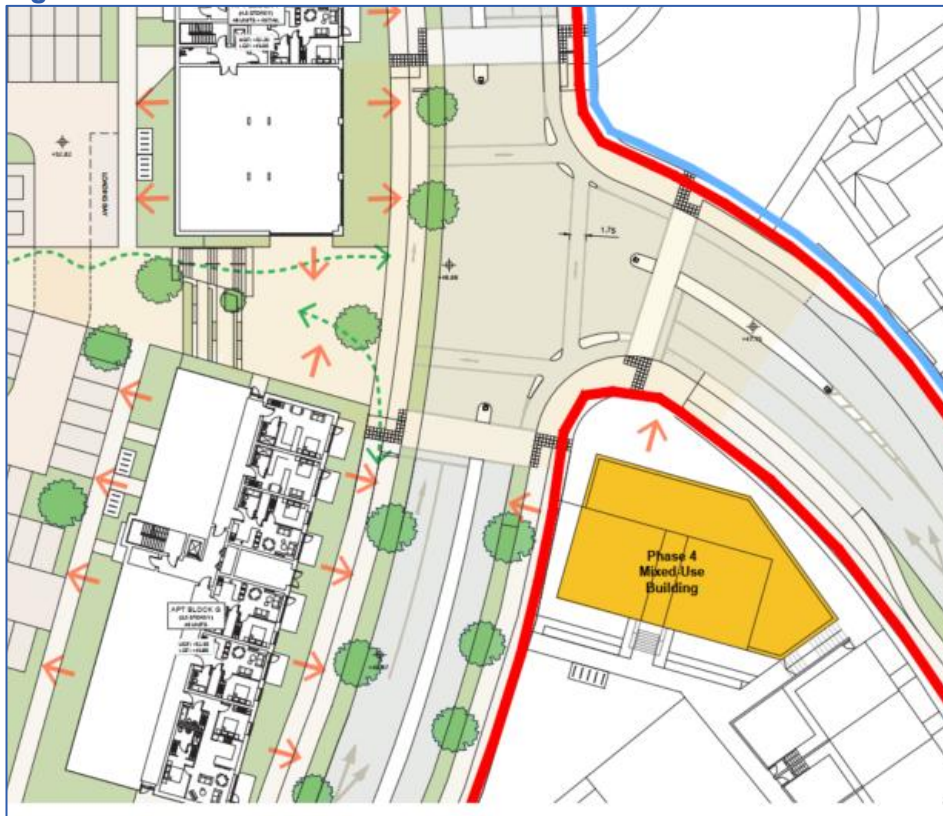
Source: DCA

2.6 RETAIL FLOORSPACE

It is proposed to provide retail floorspace of some 419 sq. m at Lower Ground Floor Level of Block F which will provide some top-up day to day convenience shopping and or a small-scale retail services function, which is very much sub-servient to the (level 3) Major Town Centre of Balbriggan.

It is noted that 350 sqm of commercial floorspace is already granted under FCC Reg. Ref.: LRD0048/S3E immediately adjoining the site to the south, consolidating existing local commercial / retail provision, in a conveniently sited location in the heart of the development at the junction of Boulevard Road and the C-Ring Road.

Figure 2.18: Retail Hub

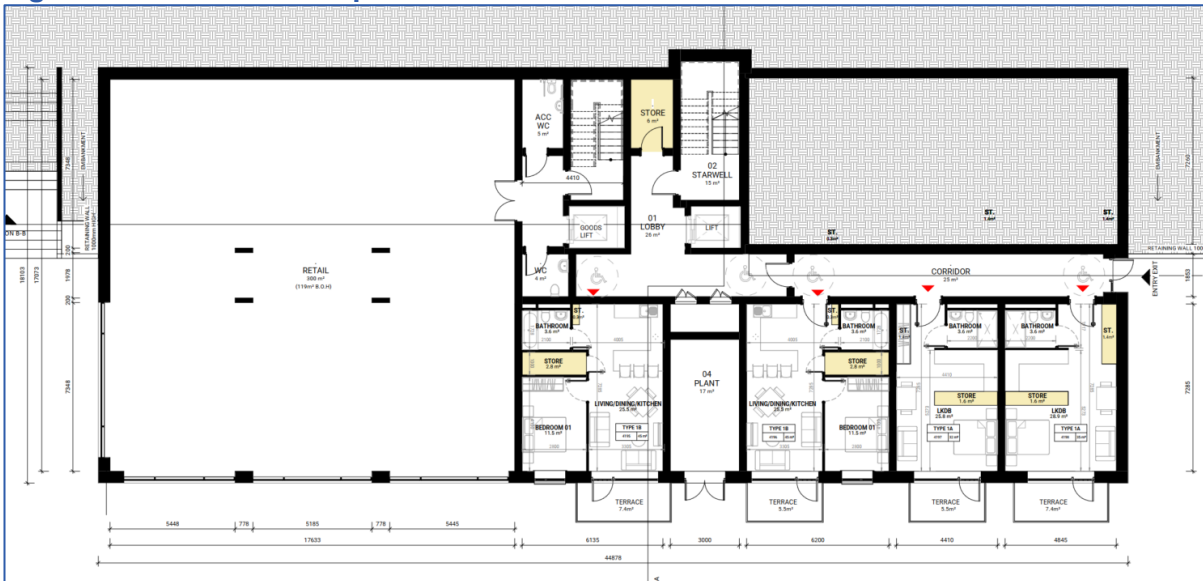


The proposed retail unit located on the lower-ground floor of Block F, will provide activity on the plaza which incorporates a tiered landscaping design with integrated seating as a place for people to meet.

The proposed apartment blocks have been arranged to provide views into the development via a public space/plaza located between the two blocks.

Figure 2.19: Block F and G with Retail at Lower Ground Floor Level

Source: 3DDB

Figure 2.20: Retail Floorspace

The previously permitted phase of development immediately to the south (LRD0048/S3E (ABP Ref: 321437-24) includes 'The Village' and is to be accessed from the Boulevard Road located to the east and comprises 4 no. 1 bedroom apartments (Type A1) in a 3-storey building (all apartments with private open space) along with 1 no. retail/café unit (c.165 sq. m) and 1 no. retail/medical unit (c. 185 sq. m) [including 'back of house area' & both units to be able to be sub-divided and amalgamated].

2.7 ROADS AND ACCESS

There are four main accesses to the development from the existing Boulevard Road, Proposed CRing Road, Existing Flemington Lane & Existing Hamlet Lane allowing for access for emergency vehicles in case of an accident at one entrance.

The proposed road layout is show on drawings numbers 2024-122-050121, 2024-122-050122 & 2024-122-050123, and its road long sections on drawings numbers 2024-122-050151, 2024-122- 050152 & 2024-122-050152.

2.7.1 DMURS

We refer the Planning Authority to the enclosed DMURS compliance document prepared by Paul McGrail CE which outlines that the design approach for the proposed residential development has been guided by the principles and best practice standards set out in the Design Manual for Urban Roads and Streets (DMURS). The layout prioritises pedestrian and cyclist safety, comfort, and convenience while supporting sustainable travel and creating an attractive urban environment stating:

“The proposed development fully complies with DMURS principles by prioritising active travel, permeability, safety, and placemaking. It delivers a balanced approach between vehicular movement and the creation of attractive, people-friendly streets, achieving a high-quality urban environment consistent with national guidance.”

2.7.2 CYCLE PARKING

The proposed cycle parking provision has been designed to encourage cycling as a key mode of transport to and from the proposed development and reduce the reliance of residents and visitors on private car use. The FCC Development Plan Standards and the Sustainable Residential Development and Compact Settlements Guidelines (January 2024) have been consulted in order to determine a suitable amount of cycle parking to be accommodated within the proposed development.

BICYCLE PARKING SUMMARY

	Secure Bicycle Parking	Visitor Bicycle Parking	Subtotal
Terraced Housing (no garden access)	644	-	644
Apartment Block A	76	24	100
Apartment Block F	76	16	92
Apartment Block G	76	16	92
Walk-Up Apartment Block C	44	16	60
Walk-Up Apartment Block H	22	16	38
Community Building	-	24	24
Commercial Space (Apartment Block G)	-	16	16
Creches	36	32	68
Class 1 Open Space	-	10	10
TOTAL	974	170	1,144

Overall, it is proposed to provide 1,144 cycle spaces. To meet the residents' cycle parking demand, 938 no. covered and secure (behind locked doors) spaces will be provided. 644 of these spaces will be for terraced housing with 294 no. cycle spaces to be provided for the apartment units at ground floor level. Cargo bike parking spaces are to be provided as part of the development proposal.

For the proposed creches, a total of 68 no. cycle parking spaces are proposed along with 24 no. spaces for the community building and 16 no. spaces for the commercial space. 170 no. visitor spaces will be provided across the site in the form of Sheffield stands. A total of 1,144 no. cycle spaces is to be provided throughout the development.

2.7.3 CAR PARKING

The proposed car parking provision has been designed to ensure balance between the residents' mobility needs with the focus on alternative modes of transport, while being cognisant of the site's locational and accessibility characteristics. The FCC Development Plan Standards and the Sustainable Residential Development and Compact Settlements Guidelines (January 2024) have been consulted in order to determine a suitable amount of car parking.

Overall, 1,037 no. car parking spaces will be provided, comprising 704 no. in-curtilage, 148 on street, 29 no. visitor parking, 9 no. for the later living units, 115 no. apartment parking and 17 no. parking spaces for the creches along with 10 no. car sharing bays and 5 no. parking spaces for the retail unit.

A summary of the overall car parking numbers are set out below:

	In-Curtilage Residential Parking	704
	On-Street Residential Parking (Houses)	148
	Visitor Parking	29
	Later Living Parking	9
	Apartment Parking	115
	Car Sharing Bays	10
	Creche Parking	17
	Commercial Parking	5
TOTAL PARKING		1,037

DCA drawing no. A507-DCA-XX-XX-DR-A-038 provides a breakdown of parking within the individual 5 no. character areas.

As can be seen in the preceding table, 704 no. parking spaces shall be provided within curtilage of the house units, 148 no. on-street residential spaces, 9 no. spaces for later living units, 115 no. spaces provided for apartments. In addition, 17 no. car parking spaces are provided for the crèches and 5 no. parking spaces (includes accessible parking space provision) for the commercial unit.

Following on from feedback noted in the LRD Opinion Letter from FCC at the Section 32D stage, 10 no. car share parking spaces are proposed as part of the development. These spaces are located in Character Area 1 and Character Area 4. The car share spaces will provide future residents with an alternative to private car ownership and encourage sustainable mobility practices.

The total car parking provision includes 1,037 no. spaces, which translates into 1.22 no. spaces per unit.

All of the proposed parking bays will be in the form of external surface parking spaces. Resident parking spaces will be located either in the individual unit's curtilage or, where the same is not practical, in groups of on-street spaces in proximity of the relevant units. All resident parking spaces will be perpendicular. A plan of car parking facilities is included in the application package.

2.8 PROPOSED C RING ROAD

The proposals make provision for the delivery of a key section of the C-ring road to the Clonard Road at the southern end of the site and therefore the proposal is in compliance with the Fingal Development Plan Road Objective set out in the zoning map relevant to the site.

The proposals will entail the provision of portion of 'C-Ring Road' from Flemington Lane [to include junctions and ancillary footpaths, cycle paths, lighting, bus stops and tie in to existing roads] to link into the existing R122 roundabout with vehicular access also from the Boulevard Road, Hamlet Lane, & Flemington Lane along with associated amendments to the layout of the Local Road L1130 (also known as the Clonard Road including the creation of a cul de sac arrangement to the south of the C-Ring Road)

Figure 2.21: Southern Section of C-Ring Road



Source: PMcGrail CE

2.9 SERVICES STRATEGY

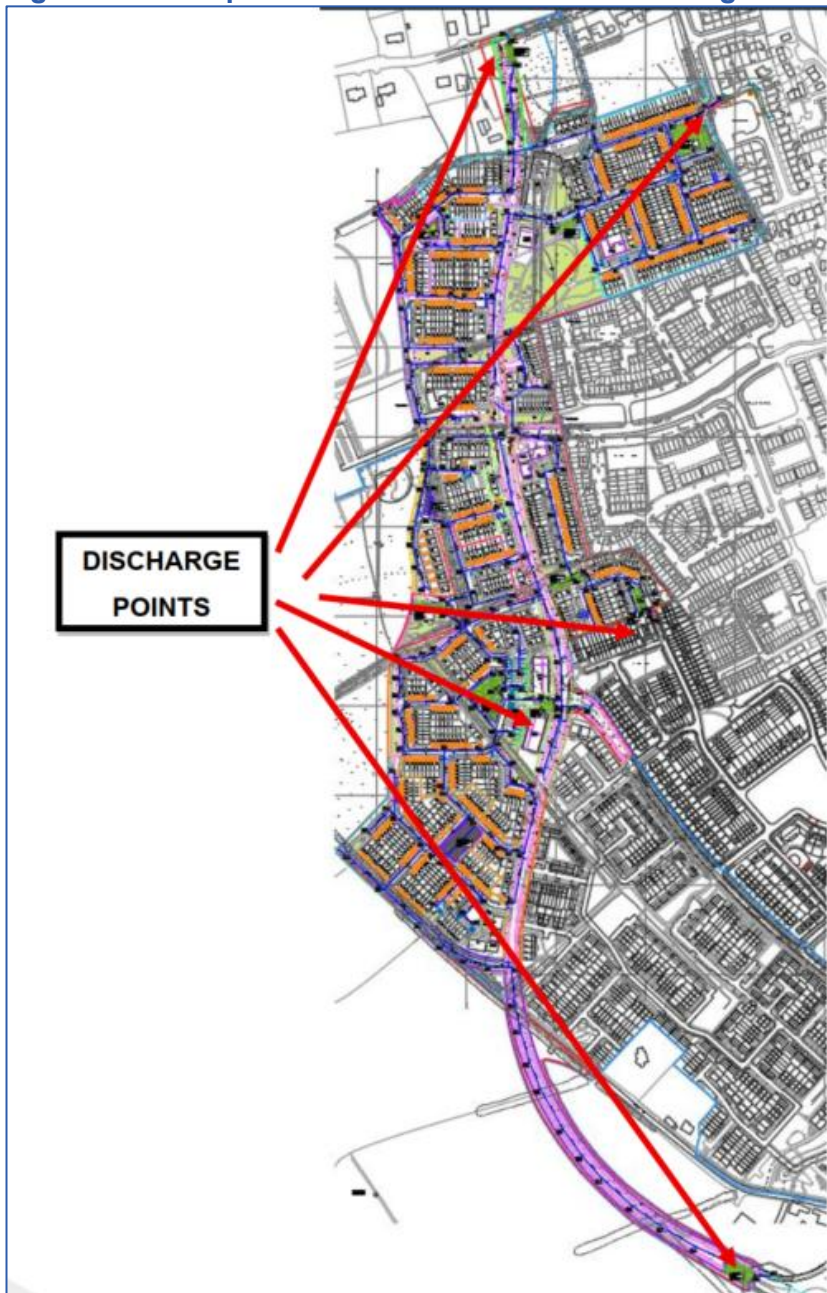
We refer the Planning Authority to the Paul McGrail Engineering Services Report included with the LRD application as well as the detail provided in chapter 13 of the EIAR (Volume II).

2.9.1 SURFACE WATER

There is no existing surface water drainage network serving the site. Rainwater currently drains by means of direct infiltration and percolation into the underlying agricultural ground.

It is proposed to discharge surface water from the site to five existing surface water pipes under the ownership of Fingal County Council, as illustrated.

Figure 2.22: Proposed Connection Points to Existing Storm Water Drainage



Source: PMcGrail CE

The overall development will be delivered in 3 phases as set out in Drawing no. A507-DCA-XX-XX-DR-A-041 - Proposed Site Layout – Phasing, prepared by DCA, included with the application. While the overall phasing relates to 3 no. phases, for surface water the site will be divided into five surface water catchments, each incorporating attenuation measures to ensure post-development runoff is restricted to the equivalent greenfield runoff rate.

There are 5 no. surface water connection points for this site which it will be into the Flemington Lane at the north boundary of the site, on the Flemington Park at northeast of the boundary, at existing Taylor Hill Terrace, at the north of the Boulevard Road with allowance of 50l/s as part of the granted permission from Taylor Hill Phase 3A, 3B & 3C and to the last connection to the existing Roundabout at R122.

2.9.1.1 Surface Water Network Design

The surface water design has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works and Sewers (GDSDS). Following consultation with Fingal County Council, there will be provided a detention basin to provide surface water storage volume. The allowable flow rate has been set at the greenfield run off rate. Surface water run-off from the surface water catchment will be attenuated using a Hydrobrake on the surface water outlet from the catchment area.

It is proposed to use a sustainable urban drainage system (SuDS) approach to stormwater management throughout the site. The overall strategy aims to provide an effective system to mitigate the adverse effects of urban stormwater runoff on the environment by reducing runoff rates, volumes and frequency, reducing pollutant concentrations in stormwater. The proposed SUDs that feature in the development are modular permeable paving, swales, bioretention, detention basins, and Hydrobrake flow control.

Surface water runoff from the development would be attenuated to greenfield runoff (Q_{bar}), in accordance with the recommendations of the GDSDS. Surface water run-off from each surface water catchment will be attenuated using a Hydrobrake on the surface water outlet from each catchment.

2.9.1.1.1 SUDS

It is proposed to use a sustainable urban drainage system (SuDS) approach to stormwater management throughout the site where possible. The overall strategy aims to provide an effective system to mitigate the adverse effects of urban stormwater runoff on the environment by reducing runoff rates, volumes and frequency, reducing pollutant concentrations in stormwater.

The SUDs features proposed in our development are as follows:

- Modular Permeable Paving
- Swales
- Bioretention Systems
- Detention Basins
- Petrol Interceptor
- Hydrobrake flow control

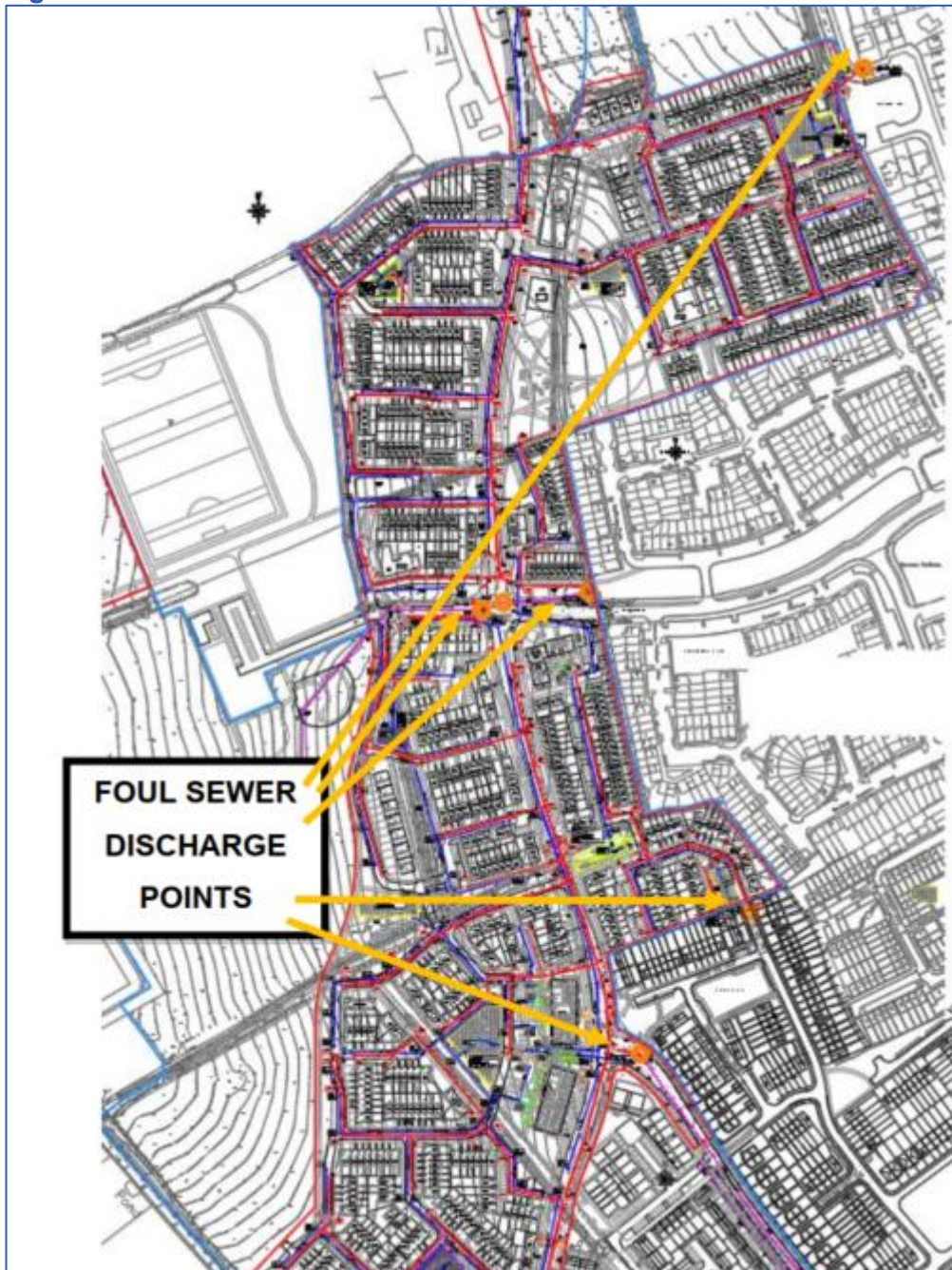
SuDS drainage designs collect and treat surface water runoff as close to source as possible. Surface water runoff is managed using a treatment train approach. This ensures that the quantity and quality of surface water runoff are addressed through the techniques of Pollution Prevention, Source Control, Site Control and Regional Control. The treatment train approach divides the drainage elements of the development into sub catchments with different drainage characteristics and land uses, such as a dwelling with modular permeable paving. Surface water runoff from the development would be attenuated to greenfield runoff (Q_{bar}), in accordance with the recommendations of the GDSDS. Surface water run-off from each surface water catchment will be attenuated using a Hydrobrake on the surface water outlet from each catchment.

To protect the ground water, the design has introduced a number of petrol interceptor through the site, and this is addition to the SUDS mitigation index design.

2.9.2 FOUL DRAINAGE

The foul water drainage system for the proposed development has been designed in accordance with the Irish Water Code of Practice and will be separate to the surface water drainage system. The foul water from the development will discharge via soil vent pipes within the buildings by gravity flow before connecting into the existing separate foul sewer network within the development. The foul sewerage for each house will have a separate connection to the proposed 225mm and 150mm diameter foul sewer along the road.

Figure 2.23: Foul Sewer Connection Points



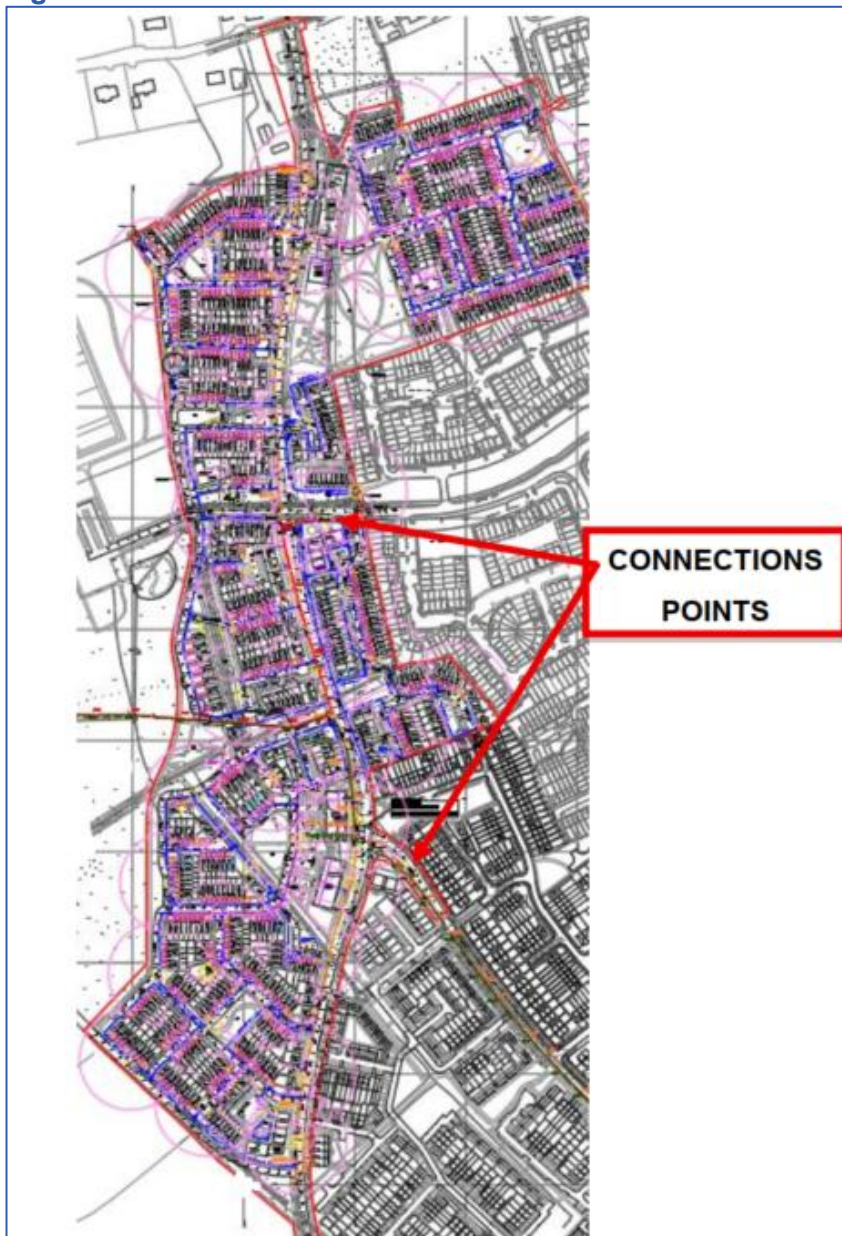
Source: PMcGrail CE

The internal foul network has been designed in accordance with Irish Water Code of Practice for Wastewater Infrastructure. The proposed development will have 6No. of discharge points for the to an existing 225, 300 and 375 diameter foul sewer at Flemington Park, Hamlet Lane and Boulevard Road as set out above. We refer the Planning Authority to the enclosed updated Confirmation of Feasibility from Uisce Eireann, included in the application. The foul water drainage system for the proposed development has been designed in accordance with the Irish Water Code of Practice and will be separate to the surface water drainage system. The foul water from the development will discharge via soil vent pipes within the buildings by gravity flow before connecting into the existing separate foul sewer network within the development. The foul sewerage for each house will have a separate connection to the proposed 225mm and 150mm diameter foul sewer along the road

2.9.3 WATER SUPPLY

The connection points will be into an existing 300mm watermain pipe at the junction with Boulevard Road and C-Ring Road, existing 400mm watermain pipes at Hamlet Lane.

Figure 2.24: Watermain Connection Points



Source: PMcGrail CE

The proposed network has been designed to comply with Uisce Eireann specification. Individual houses will have their own connections to the distribution main via service connections and boundary boxes. Individual service boundary boxes will be of the type to suit Uisce Eireann and to facilitate possible future domestic meter installation.

The water main layout and details are in accordance with Irish Water Connection and Developer Services, 'Code of Practice for Water Infrastructure' and 'Water Infrastructure Standard Details'.

2.9.4 ELECTRICAL SUPPLY

There is a substation which is been constructed as the previous phase and the power for the proposed development will be fed from this existing ESB substation. The proposed sub stations will provide power to a number of mini pillars which will provide power to the residential dwellings.

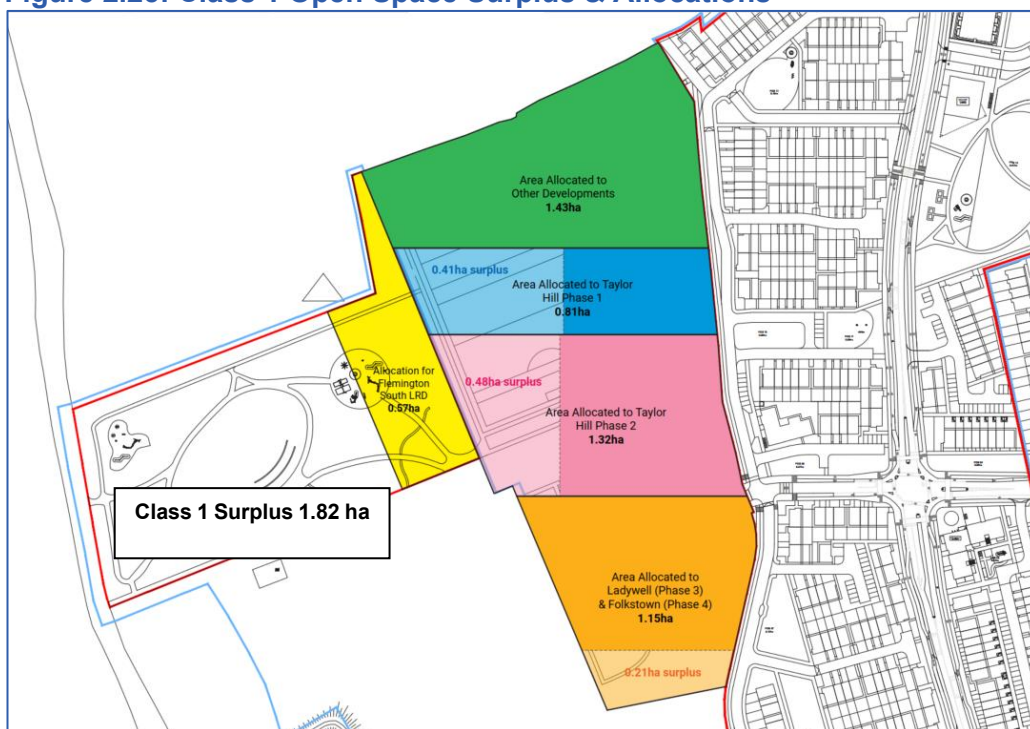
2.10 LANDSCAPE STRATEGY

The proposed development includes some 5.26 hectares of open space comprising Class 1 Open Space (c. 2.39 hectares in the western part of the lands), public open space c.2.87 hectares (equating to 16.6% open space on the RA zoned lands), hard and soft landscaping (including public lighting & boundary treatment) and communal/semi-private open space for the proposed apartment units.

2.10.1 CLASS 1 OPEN SPACE

We would highlight that across the previous phases of development by Glenveagh there is an over provision of open space of the order of 1.1 hectares (across phases 1-4). This current phase of development by Glenveagh requires 1.67 hectares of class 1 open space in its own right. However, when the previous surplus is taken into account the actual provision required is 0.57ha. This application includes some 2.39 hectares of Class 1 open space, which means that there is a surplus of 1.82 hectares of class 1 open space on this phase 5 of development (Flemington South LRD).

Figure 2.25: Class 1 Open Space Surplus & Allocations



Source: DCA

We refer the planning authority to drawing A507-DCA-XX-XX-DR-A-040 prepared by DCA which provides further detail.

Figure 2.26: Main Open Space



Source: Parkhood

The proposed central open space (c. 0.92 hectares) provides a multifunctional space with a generous kick about grass area. A Local Equipped Area for Play has been proposed with the recommended 25m setback from nearest dwellings as per Fingal Space for Play Policy. A hard plaza area has been proposed to the commercial and community pavilion with a potential location for public artwork.

Multiple seating areas have been proposed overlooking the grand lawn area with picnic benches also included offering an area for informal outdoor gathering and dining. Areas of smaller intimate seating with attractive outlooks are offset from the main pedestrian routes and surrounded by ornamental shrub and specimen tree planting.

2.10.2 WESTERN CLASS 1 OPEN SPACE

It is noted that the previously permitted LRD on the subject lands included a playing pitch on the Class 1 open space. It is proposed to significantly enhance the class 1 open space proposals to provide a range of active and passive uses in a much more engaging and higher quality environment.

Figure 2.27: Western Class 1 Open Space



Source: Parkhood

2.10.3 CHILDRENS PLAY PROVISION

Eight designated LAPS, three LEAPS and two fitness areas are proposed across the site with the one in the main public open space being a LEAP (play area) aside a community building.

The play areas will be designed to be both secure and overlooked in line with RoSPA safety advice and European Standard (EN 1176). Play facilities are located well away from any ESB infrastructure.

The play areas will cater for the recreational and educational requirements of children of residents and comply with the distance requirements as set out in the FDP of 25m between them and nearest residential properties. No play areas are located in SUD areas.

As part of the Design Process, Park Hood worked with Kompan (or otherwise agreed) in terms of the design of playgrounds and the types of play equipment that would be appropriate for LEAPs and LAPs.

The total area is based on the calculated provision of 4m² per residential unit (in developments over 50 units).

- 4m2 x 815 units = 3,260 sqm required
- Total Area of Public Play Areas provided = 3,260 sq.m

2.10.4 BOUNDARY TREATMENT

The Boundary Treatments within the development have been selected with the aim of balancing privacy, security, aesthetics, and integration with the surrounding character.

In general, this comprises the following:

- Hedgerows and bin stores to front of properties;
- Hedgerows to periphery of the site
- Timber close-board fencing to rear gardens; and
- Walls to rears of gardens and abutting public realm areas.

2.10.5 HARDSCAPE AND FURNITURE

The selection of hard landscape materials is based on sustainability, permeability and suitability for an urbanised environment and usage. This will include natural and manufactured paving with a consistent selection of materials specified through the proposed spaces in terms of shape, material, form and colour.

The proposals includes for extensive hard landscape elements including for a pathway network to provide a safe and traffic-free environment for walkers, runners and cyclists. Urban furniture is to be located at key locations or spaces along these connections for resident or visitor use.

The majority of the hardworks materiality will be as per the Engineers specification. Parkhood have proposed the hardworks surfacing for open space paths, play areas, areas surrounding apartments and commercial community pavilion.

2.10.6 SOFTWORKS PROPOSALS

Extensive soft landscape works are proposed to assist with visual integration, open space definition and screening both internally and externally. The collective tree planting will, as they mature give this site a far more wooded character than it has at this time.

Bio-diversity measures including bat and bird boxes, relocation of potentially effected ground flora into the open space and laying out of a lowland meadow are also part of the proposed development and will be undertaken under direction from site ecologists.

The landscape works include for planting of trees within public open space, communal open space and along new connection routes through the proposed development that will entail 'semi-mature' or 'extra-heavy standard' size trees to provide an instant impression. The collective trees will, as they mature, assist in merging the proposed development into the surrounding landscape and local views as well as set about creation of the areas new landscape character.

Other landscape works will include structure planting, amenity planting, garden trees, hedgerows and wooded belts. Such planting will more than compensate for the loss of any low-quality vegetation that currently exists and will enhance the overall "green" cover and nature of the site.

The planning application is accompanied by Landscape Management and Maintenance Plans setting out the objectives for management of external spaces or public realm areas for a 20-year period.

Regular monitoring will be undertaken to determine success of landscape operations and ensure they are behaving in the manner anticipated at design stage. If required, elements of the design can be adapted to accommodate changes required by actual field experience.

2.11 DESCRIPTION OF THE MAIN CHARACTERISTICS OF THE CONSTRUCTION PHASE

2.11.1 INTRODUCTION

The development of the lands will occur for up to 10 years having regard to the nature of the project and the need for flexibility. The anticipated duration of construction within the 10 years is envisaged at between 0-48 months is expected in the best-case scenario where no obstacles arise. A Construction Environmental Management Plan has been prepared by Paul McGrail Consulting Engineers and is included with the application (see Appendix D Volume III of the EIAR). The CEMP will be developed by the appointed contractor and submitted to Fingal County Council prior to commencement of development and will include the mitigation measures set out in this EIAR and to comply with any relevant conditions attached to a grant of permission. It is important to note that the mitigation measures outlined in the EIAR will ensure that an extension to the construction period will not have a negative impact on the receiving environment.

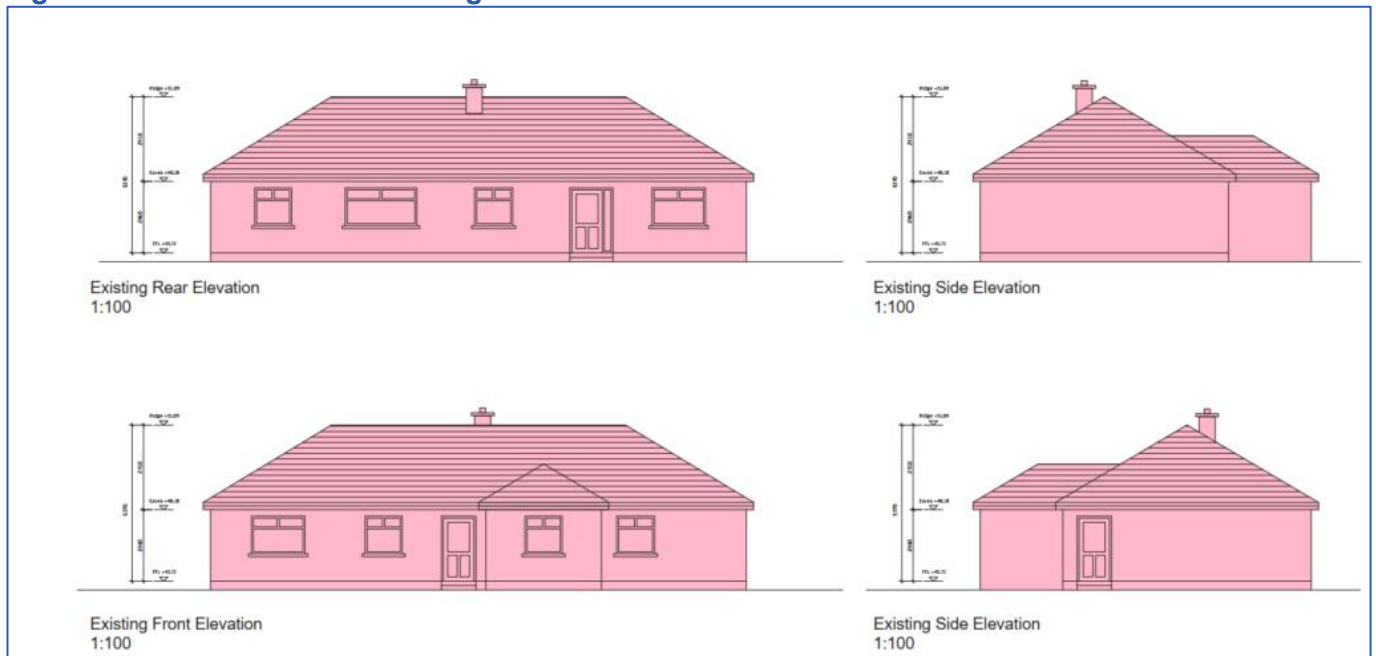
This EIAR presents proposed mitigation measures to ensure that the planned development of the parks does not generate significant adverse impacts for residential, educational and working communities in the wider vicinity of the site.

The proposed development, as described, is detailed on the planning application drawings and particulars which accompany the application.

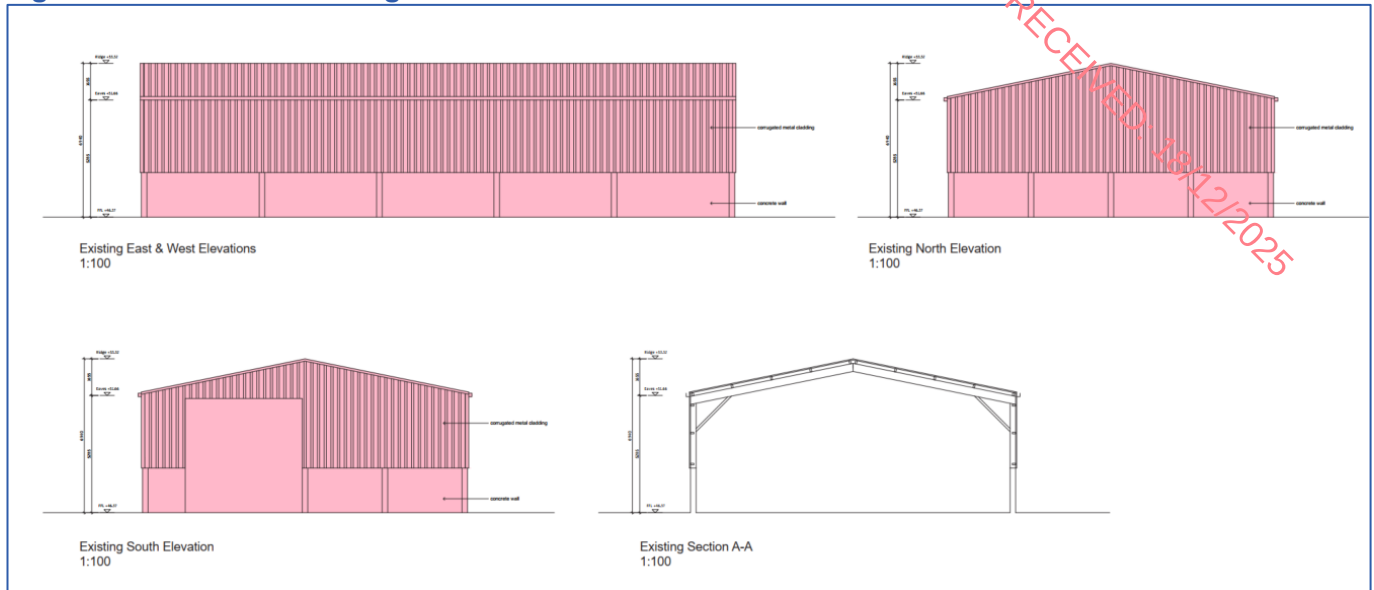
2.11.2 DEMOLITION

The proposals include the demolition of a single storey dwelling (of c. 166 sq. m) along with the dismantling of an agricultural shed located in the northern part of the subject site to facilitate the construction of the C-ring road between the main site and Flemington Lane.

Figure 2.28: Demolition – Dwelling



A507-DCA-XX-XX-DR-A-503 - Existing House - To Be Demolished

Figure 2.29: Demolition – Agricultural Shed

A507-DCA-XX-XX-DR-A-504 - Existing Shed - To Be Demolished

2.11.3 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

The Contractor's CEMP will implement the measures contained in this EIAR and the CEMP (included with the application in Appendix D Volume III of this EIAR) as well as the mitigation measures set out in the NIS prepared by Altamar. The CEMP presents the approach and application of environmental management and mitigation for the construction phase of the proposed Project. It aims to ensure that adverse effects from the construction phase of the proposed Project, on the environment are avoided or minimised. It will include the construction stage mitigation included in Chapters 3-15 of this EIAR and as summarised in Chapter 18.

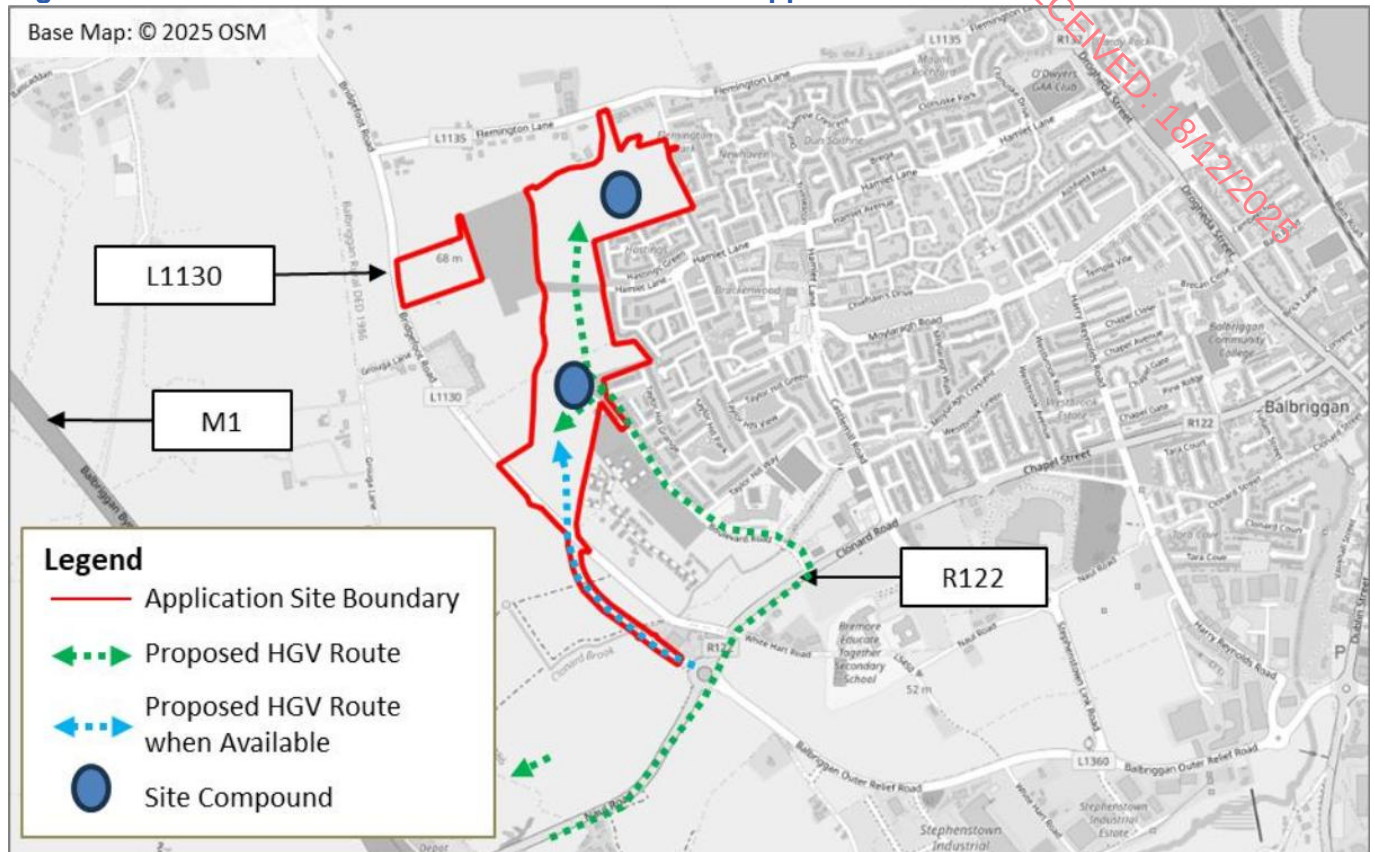
Post planning, the appointed contractor will take ownership of the Construction Environmental Management Plan (CEMP). Prior to any demolition, excavation or construction, the Construction Environmental Management Plan (CEMP) will be updated by the successful contractor. The CEMP will set out the Contractor's overall management and administration of the construction project. The CEMP will be treated as a live document and communicated to all relevant personnel on site.

2.11.4 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Appendix F of Volume III of the EIAR contains a Framework Construction Traffic Management Plan (FCTMP). The mitigation contained in the FCTMP will be included in the contractors CEMP/CTMP.

In general, the impact of the construction period will be short-term in nature and less significant than the operational stage of the proposed development due to the reduced traffic volumes generated during the construction stage compared to the operational stage. In addition, the peak construction arrivals / departures will be outside of the road network peak hours and therefore will not exacerbate any existing delays encountered during peak times. It is anticipated that the generation of HGV's during the construction period will be evenly spread throughout the day, and such will not impact significantly during the peak traffic period.

In accordance with the CTMP, the set HGV haulage routes are to be adhered to, as illustrated in below unless otherwise agreed with FCC.

Figure 2.30: Construction Traffic Routes to/from The Application Site

The site access arrangements have been developed to reflect site-specific considerations emerging from the site assessment. In addition to reflecting identified routes to/ from the site, a central consideration in determining the current access proposals is vehicular, cyclist and pedestrian safety (including construction staff). Access to and from the development site from the surrounding road network will be via the R122, with all or most of the HGV traffic expected to travel to the site from the west, without entering Balbriggan Town (subject to contractor requirements). Construction traffic will then turn into Boulevard Road at the R122/ Boulevard Road Junction and subsequently enter the site via the south entrance. Egress from the site would be via the same route. Following implementation of the southern section of the C-Ring Road, HGV traffic shall be directed to utilise this route to access/ egress the R122.

2.11.5 EMISSIONS AND WASTE

2.11.5.1 Water Demand

The water consumption is a function of the usage of the development. The proposed development of the parks will not increase water demand significantly and no impact on the water supply network is envisaged.

2.11.5.2 Effluents

During the construction phase, the foul flows generated on site will initially be tankered off site to a licensed facility until a temporary connection to the public foul drainage network has been established.

The operational phase will produce effluents such as foul water which are set out in chapter 13 of the EIAR.

2.11.5.3 Construction Waste Disposal Management

Chapter 11 of the EIAR (Material Assets – Waste Management) and the Resource Waste Management Plan, prepared by AWN (included with the application in Appendix E Volume III of the EIAR), provides detail on the construction related waste management for the proposal.

The Objective of the Waste Management Plan is to minimise the quantity of waste generated by construction activities, to maximise the use of materials in an efficient manner and to maximise the segregation of construction waste materials on-site to produce uncontaminated waste streams for off-site recycling.

All surplus materials will be removed offsite in accordance with waste management legislation/article 27 notification.

2.11.5.4 Contaminated Soil

If detected, the management of asbestos at the site and off-site transport will be undertaken by an appointed specialist contractor in accordance with an asbestos management plan for the works. Chapter 11 provides more information.

2.11.5.5 Emissions

The principal forms of air emissions relate to discharges from motor vehicles. Exhaust gases from motor vehicles will arise from car parking areas and will be discharged directly to the atmosphere. Car parking for motor vehicles is provided at surface level. Chapters 7 and 8 of the EIAR sets out the potential impacts and mitigation in respect of Air Quality and Climate.

Noise may be considered in two separate stages, during construction, and when the development is operational. Construction related noise impacts are an inevitable short term limited inconvenience feature which, in general, is accepted by members of the public, subject to the standard controls typical of planning conditions attached to urban based development projects. These impacts can be reduced in a number of ways. It is standard practice to limit construction to normal working hours during the day. In addition, there are a number of regulations relating to noise during construction which the contractor will be expected to adhere to throughout the construction phase. Chapter 9 of the EIAR sets out the potential impacts and mitigation in respect of Noise and Vibration.

2.12 DIRECT AND INDIRECT EFFECTS RESULTING FROM USE OF NATURAL RESOURCES

Details of significant direct and indirect effects arising from the proposed development are outlined in Chapters 3-15 which deal with '*Aspects of the Environment Considered*'. No significant adverse impact is predicted to arise from the use of natural resources.

2.13 DIRECT AND INDIRECT EFFECTS RESULTING FROM EMISSION OF POLLUTANTS, CREATION OF NUISANCES AND ELIMINATION OF WASTE

Details of emissions arising from the development together with any direct and indirect effects resulting from same have been comprehensively assessed and are outlined in the relevant in Chapters 3-16 which deal with '*Aspects of the Environment Considered*'. There will be no significant direct or indirect effects arising from these sources.

2.14 FORECASTING METHODS USED FOR ENVIRONMENTAL EFFECTS

The methods employed to forecast the effects on the various aspects of the environment are standard techniques used by each of the particular individual disciplines. The general format followed was to identify

the receiving environment, to add to that a projection of the “loading” placed on the various aspects of the environment by the development, to put forward amelioration measures, to lessen or remove an impact and thereby arrive at net predicted impact.

2.15 ALTERNATIVES CONSIDERED

Chapter 2 of the EIAR (volume II) also includes a summary of alternatives which were considered for the proposed development of the subject lands. These options were considered as the scheme progressed and the key considerations and amendments to the design having regard to the key environmental issues pertaining to the lands are summarised in this section of the EIAR.

2.15.1 DO-NOTHING ALTERNATIVE

The site is zoned for residential development under the Fingal County Development Plan 2023-2029 and as such, consideration of alternative sites is not necessary. In effect, an alternative location in this instance i.e., a ‘do- nothing’ alternative for the subject site, would mean that these residential zoned lands would not be utilised for the purposes of meeting the need for new residential accommodation within Balbriggan. If development does not occur sequentially from the existing development footprint, it is likely that pressures for the development of land which is either un-zoned or un-serviced and not as close to the town centre would be greater. This would lead to a dispersed and unsustainable form of development.

A “do-nothing” scenario was considered to represent an inappropriate, unsustainable and inefficient use of these residential zoned lands. The suitability of the lands for development, is an important consideration, in this regard. With reference to the final layout, the iterative process outlined above, which included alternative site layouts were considered with the objective of producing a new high quality residential development, which has undergone a robust consideration of relevant alternatives having regard to the comparison of environmental effects and meets the requirements of the EIA Directive, based on the multidisciplinary review across all environmental topics.

The proposed development provides for new residential development on lands zoned for residential use under the Fingal County Development Plan which was subject to the SEA process. As such, consideration of alternative sites for the construction of houses and apartments proposed in this residential development was not considered necessary.

Based on a comparison of the environmental effects, as described for each Iteration above, together with the regulatory requirements of the Development Plan, it is considered the proposed development has been selected for the following reasons:

- The alternative for the LRD project introduces a full link between the Clonard Road and Flemington Lane which is positive, moderate and permanent.
- The proposed development results in a high degree of permeability, resulting in a highly connected neighbourhood with strong connections which will have positive impacts on population and human health.
- Avoids significant environmental impacts on the receiving environment.

In summary, the overall design of the proposed development considers all environmental effects and provides for a sustainable development that has been optimised to emphasise positive environmental effects whilst reducing negative environmental impacts wherever possible. The preferred alternative is not considered to give rise to any significant adverse environmental impacts following the mitigation measures to be implemented at the construction and operational phases. The final proposed scheme also responds to the characteristics and constraints of the subject site vis a vis the previous iterations of the scheme and the alternative layouts considered.

3.0 NON-TECHNICAL SUMMARY OF EIAR CHAPTERS

3.1 POPULATION AND HUMAN HEALTH

It should be noted that there are numerous inter-related environmental topics described throughout this EIAR document which are also of relevance to Population and Human Health. Issues such as the potential likely and significant impacts of the proposed development on landscape and visual impact, biodiversity, archaeology, architectural and cultural heritage, air quality and climate, noise and vibration, water, land and soils, material assets including traffic and transport impacts, residential amenity etc. are of intrinsic direct and indirect consequence to human health. The specific chapters of the EIAR (3-15) assess the environmental topics outlined in the EIA Directive.

In preparing this chapter, consideration has been given to the other inputs to this EIAR including, in particular, the chapters addressing Air Quality and Climate, Noise and Vibration, Traffic as well as Risk Assessment Chapter (accidents or disasters) and the separate reports addressing Resource Waste Management, and the Construction and Environmental Management Plan (see Volume III of the EIAR).

The site is located on the western edge of Balbriggan, a coastal town situated on the northern edge of Fingal's administrative area and is accessed from the national and regional road network via the M1 Dublin-Belfast motorway and R132 corridor. Balbriggan and its environs are well serviced in terms of access to educational, community and retail facilities, as well as public transport provision in the form of multiple bus services and an Irish Rail commuter service (Dundalk – Drogheda – Dublin – Bray). A circular bus service also operates in the Town between Balbriggan Railway Station via Drogheda Street.

3.1.1 POTENTIAL CONSTRUCTION AND OPERATIONAL PHASE IMPACTS

The construction phase of the proposed development is likely to result in a positive net improvement in economic activity in the area of the proposed development site, particularly in the construction sector and in associated and secondary building services industries. The sector has grown strongly in recent years and this development will help to further enhance growth and reduce the increasing pressure on the housing market.

The construction phase of the proposed development will primarily consist of site clearance, excavation and construction works, which are likely to take place over 5 main phases, which will be largely confined to the proposed development site. Notwithstanding the implementation of remedial and mitigation measures there will be some minor temporary residual impacts on population (human beings) and human health most likely with respect to nuisance caused by construction activities. It is anticipated that subject to the careful implementation of the remedial and mitigation measures proposed throughout this EIAR document any adverse likely and significant environmental impacts will be avoided. Positive impacts are likely to arise out of an increase in employment and economic activity. The overall predicted likely and significant impact of the construction phase will be short-term, temporary and likely to be neutral.

The construction of the sewerage connection to facilitate the proposed development will require works to the public road will likely entail some localised impacts to residents. The Construction Management Plan will ensure that disruption and nuisances will be kept to a minimum.

The proposed development will result in a generally positive alteration to the existing undeveloped site in terms of the provision of residential units to serve the growing residential population of the area in accordance with the objectives of the Fingal County Development Plan 2023-2029. Positive impacts on population and human health will include health benefits associated with the provision of a significant quantity of open space, pedestrian and cyclist routes, a highly permeable layout which connects to adjacent development.

The implementation of the range of remedial and mitigation measures included throughout this EIAR document is expected to have the impact of limiting any adverse significant and likely environmental impacts of the operational phase of the proposed development on population and human health.

Population and Human Health comprise an important aspect of the environment to be considered. Any significant impact on the status of human health, which may be potentially caused by a development proposal, must therefore be comprehensively addressed.

Population and Human Health is a broad ranging topic and addresses the existence, activities and wellbeing of people as groups or '*populations*'. While most developments by people will affect other people, this EIAR document concentrates on those topics which are manifested in the environment, such as new land uses, more buildings or greater emissions.

3.2 BIODIVERSITY

The biodiversity assessment has been undertaken by Altamar Limited. It assesses the biodiversity value of the proposed development area and the potential impacts of the development on the ecology of the surrounding area and within the potential zone of influence (ZOI). Standard construction and operational phase control measures, in addition to monitoring measures, are proposed to minimise potential impacts of the proposed development and to improve the biodiversity potential of the proposed development site post construction.

The programme of work in relation to biodiversity assessment was designed to identify and describe the existing ecology of the area and detail designated sites, habitats or species of conservation interest that could potentially be impacted by the proposed development. It also assesses the significance of the likely impacts of the scheme on the biodiversity elements, and designs mitigation measures to alleviate identified impacts.

A pre-survey biodiversity data search was carried out in March 2020 and revised in June 2023, October 2023, and August 2025. This included examining records and data from the National Parks and Wildlife Service (NPWS), National Biological Data Centre (NBDC) and the Environmental Protection Agency (EPA), in addition to aerial, 6-inch maps and satellite imagery. A habitat survey of the site was undertaken within the appropriate seasonal timeframe for terrestrial fieldwork.

The potential ZOI of the project was deemed to be the site within the site outline with potential for downstream impacts to the marine environment via the proposed foul and surface water drainage strategy.

There is an indirect hydrological pathway to designated conservation sites located within Irish Sea via the proposed foul and surface water drainage strategy. After consultation with Paul McGrail Consulting Engineers, it was outlined that, after attenuation on-site, surface water drainage will be directed to the arterial drainage network currently servicing the existing housing estate to the east of the site and the road network to the south, which in turn outfalls to the Clonard Brook Stream, Bremore Stream, and, ultimately, the marine environment. Foul wastewater drainage will ultimately be discharged to an existing foul drainage network. Foul wastewater will be treated along this network at the Balbriggan / Skerries Wastewater Treatment Plant. Given excavation and construction works are proposed in close proximity to surface water drainage networks and drainage ditches that outfall to the Clonard Brook Stream and Bremore Stream, and out of an abundance of caution, there is the potential for dust and contaminated surface water to enter the proximate watercourse network and impact on downstream aquatic biodiversity and the North-West Irish Sea SPA (located immediately downstream of the Bremore Stream). In this case, the potential ZOI extends beyond the site, with the potential for downstream impacts to extend beyond the proposed development area via the proposed construction works and the surface water networks.

It should be noted that no species of conservation importance were noted on site, based on NPWS and NBDC records as fine resolution. No species of conservation importance have been noted on site by NPWS.

The proposed development site consists primarily of arable crops with grassland, recolonising bare ground, dry meadows and grassy verges, derelict structures and hedgerows. No habitats of conservation importance were noted on site.

Birds

Breeding birds

11 green-listed bird species of conservation concern were recorded breeding within the survey area; blackbird, blackcap, blue tit, chaffinch, dunnock, goldfinch, hooded crow, robin, song thrush, woodpigeon and wren. Five amber-listed bird species of conservation concern were recorded breeding within the survey area; herring gull, house sparrow, linnet, starling and swallow. One red-listed bird species of conservation concern was recorded breeding within the survey area; yellowhammer. Four hotspots of breeding activity were identified, two in the north (treeline/hedgerow and agricultural buildings), one in the centre (hedgerow) and one in the east (treeline/scrub) within the survey area.

Wintering Birds

A series of wintering bird surveys were carried out onsite during the 2024/2025 wintering period by Altamar (see Appendix 4.3 for full details), the 2023/2024 wintering period and spring 2023 by Joseph Adamson (MCIEEM) (see Appendix 4.4 & 4.5).

As outlined in Appendix 4.3: *'A total of 31 species were recorded within, above and adjacent to the survey area across 12 surveys (see Appendix 1a for individual observations). 19 green, nine amber and three red species of conservation concern were recorded either within, over and adjacent to the overall survey area.'*

As outlined in Appendix 4.4: *'A total of twenty-two bird species was observed during the Winter 2023/2024 bird survey. Two Red-Listed species, namely meadow pipit and yellowhammer were observed during the site visits. The two Red -Listed species may breed within the site. Three Amber-Listed species, herring gull, starling, skylark, greenfinch and linnet were observed during the site visits. The only Amber-Listed species that may breed within the site are greenfinch and linnet. All other species observed are Green-Listed, species of favourable conservation status.'*

As outlined in Appendix 4.5: *'A total of nineteen bird species were observed during the Winter site visits. Two Red-Listed species, namely meadow pipit and yellowhammer were observed during the site visits. The two Red-Listed species may breed within the site. Three Amber-Listed species, herring gull, starling and linnet were observed during the site visits. The only Amber-Listed species that may breed within the site is linnet. All other species observed are Green-Listed, species of favourable conservation status.'*

Birds observed at the Flemington Lane site are typical of the habitats present. The species assemblage is a reflection of the agricultural fields, hedgerows and overgrown waste ground habitats within and around the site and the birds observed are typical of birds occurring in these habitats in North County Dublin in Winter." In relation, to yellowhammer (redlisted) as outlined in Appendix 4.5 "A single individual was flushed from one of the OSR fields on the 18th March. A male and female was observed on the 21st of March. A scarce bird in Ireland, but can be quite frequently observed in parts of North County Dublin and Meath.'

Plant Species

The plant species encountered at the various locations on site are detailed above. No rare or plant species of conservation value were noted during the field assessment. Records of rare and threatened species from NBDC and NPWS were examined. No rare or threatened plant species were recorded in the vicinity of the proposed site. No invasive plant species that could hinder removal of soil from the site during groundworks, such as Japanese knotweed, giant rhubarb, Himalayan balsam or giant hogweed were noted on site.

Bat Fauna

Bat foraging was noted on site and noted to be particularly active in the vicinity of ash treelines located to the north of the site. Trees of bat roosting potential are noted on site. However, no confirmed bat roosts

were noted onsite. It should be noted that no bats were recorded emerging from the derelict buildings located to the north of the site.

Amphibians/Reptiles

No amphibian or reptile activity was noted on site.

Terrestrial Mammals

No badgers or badger activity was noted on site. No resting or breeding places of mammals of conservation importance have been noted on site. A single instance of an Irish Stoat (*Mustela erminea Hibernica*) transiting along a hedgerow located immediately west of the site boundary was recorded by a camera trap. No confirmed resting or breeding place for this species was recorded onsite. Hare (*Lepus timidus*) were observed within arable cropland to the south of the site.

The proposed development will involve the removal of the existing terrestrial habitats on site, re-profiling, excavations, and the construction of residential units.

The construction of the proposed development would impact on the existing ecology of the site and the surrounding area. These potential construction impacts would include impacts that may arise during the site clearance, re-profiling, excavations, and the building phases of the proposed development.

Construction phase mitigation measures are required on site particularly as reprofiling of the site is proposed which will remove/alter existing terrestrial habitats and can lead to silt laden and contaminated runoff to proximate surface water drainage networks, the Clonard Brook Stream and Bremore Stream. In the absence of mitigation measures, and out of an abundance of caution, there is the potential for contaminated surface water runoff to enter proximate surface water drainage networks with the potential for downstream impacts on the Clonard Brook Stream and Bremore Stream, aquatic biodiversity, and the downstream North-West Irish Sea SPA. In addition, habitats of local importance are on site and need to be protected. Bats are noted on site and need to be protected during the construction stage. Barn swallows were noted nesting on site. Meadow Pipit (*Anthus pratensis*), Yellowhammer (*Emberiza citrinella*), and Kestrel (*Falco tinnunculus*) were also noted on site.

Once developed, the site would be seen as a stable ecological environment. Appropriate measures should be taken to prevent contaminated surface water run-off and silt into adjacent habitats. Light spill should be avoided during operation of the site particularly treelines. The construction of new drainage networks will have to comply with SUDS and County Council requirements and as a result would have negligible impact on habitats and species surrounding proposed development site. Given that it is proposed to discharge surface water drainage to a surface water network that discharges to the Clonard Brook Stream and Bremore Stream, which in turn ultimately outfalls to the marine environment, in the absence of mitigation, and out of an abundance of caution, there is the potential for downstream impacts on the North-West Irish Sea SPA (located immediately downstream of the Bremore Stream) via contaminated surface water drainage which may enter the Clonard Brook Stream and Bremore Stream during operation.

Mitigation measures will be incorporated into the proposed Project to minimise the potential negative impacts on the ecology and downstream conservation sites. These measures are outlined in the EIAR. Mitigation measures are primarily relating to storm water management including silt control, compliance with lighting regulations, and having ecological supervision on site.

Based on the successful implementation of the construction phase controls and the works to be carried out in accordance with this EIAR and the accompanying AA Screening/NIS, it is likely that there will be no significant ecological impact arising from demolition or construction works proposed for the proposed project. Designated conservation sites will not be impacted by the proposed development during construction.

A robust series of standard construction phase control measures have been outlined to ensure that the proposed project does not impact on species or habitats of conservation importance, conservation areas or watercourses during construction. It is essential that these measures are complied with to ensure that the proposed works do not have downstream environmental impacts. These measures are to protect the Clonard Brook Stream and Bremore Stream, which are potentially the primary vector of impacts from the site, is not impacted during construction phases of the proposed development.

No significant environmental impacts are likely in relation to the construction of the proposed development. Effects: Slight effects / site / Negative effect / Not significant / short term/likely. Standard mitigation will be in place on site.

Based on the successful implementation of the operational phase controls and the works to be carried out in accordance with this EIAR and the accompanying AA Screening/NIS, it is likely that there will be no significant ecological impact arising from operation of the proposed project. Designated conservation sites will not be impacted by the proposed development.

Standard operational phase control measures have been outlined to ensure that the proposed project does not impact on species or habitats of conservation importance, conservation areas or watercourses. It is essential that these measures are complied with, to ensure that the proposed works do not have downstream environmental impacts. These measures are to protect the Clonard Brook Stream and Bremore Stream, which are potentially the primary vector of impacts from the site, is not impacted during operational phases of the proposed development.

No significant environmental impacts are likely in relation to the operation of the proposed development. Effects: Slight effects / site / Negative effect / Not significant / long term/likely. Standard mitigation will be in place on site.

3.3 LAND, SOILS, GEOLOGY & HYDROGEOLOGY

The receiving environment is discussed in terms of; land geology, soils, hydrogeology, and site history including potential for contamination.

The development will consist of the construction of 815 no. dwellings, open space, ancillary infrastructure, community/retail floorspace and 2 no. creches on an overall combined site area of 24.91 hectares and on multiple portions of separate parcels of land characterized currently by an agricultural function located at Flemington Lane in Balbriggan, North Co. Dublin.

The development site is a greenfield site located approximately 1.6 km west of the Balbriggan town centre. The subject development is partially bounded by the Clonard Road (regional Route R122) and Bridgefoot and adjacent agricultural lands to the south and west, respectively. The site is bounded by Flemington Lane and agricultural lands to the north and by Taylor Hill Grange Residential Estate, among other adjacent / neighbouring residential housing estates to the east.

Figure 3.1: Site Location



The topography is relatively consistent with the site generally falling in elevation from northeast to south-west and characterized by minor localized undulations.

The site is currently a greenfield site characterised with an agricultural function. The vicinity and surrounding context of the site is predominantly characterized by a residential land and agricultural function, coupled with a combination of commercial, recreational, educational / institutional and amenity uses.

A review of historical aerial satellite imagery spanning from the period 1995 to 2018 indicates that the development of residential land in the vicinity of the site to the east commenced around 2001.

The bedrock aquifer underlying the site according to the GSI (www.gsi.ie/mapping) National Bedrock Aquifer Map is classified as (LM) *Locally Important Aquifer - Bedrock which is Generally Moderately Productive in local zones*. The site is not underlain by any gravel aquifers. Figure 5.5 below presents the current bedrock aquifer map for the area surrounding the Site.

There are no Special Protection Areas, candidate Special Areas of Conservation or proposed Natural Heritage Areas within or immediately adjacent to the facility. The nearest site designated for nature conservation is the North-West Irish Sea SPA (Site Code 004236), which is located approximately 1.7 km to the east. As such, there are no groundwater dependent wetlands within the zone of influence (or downstream) of the proposed development.

The local flow paths (<500m) and little connectivity which are characteristic of this locally important aquifer classification, indicate there is no hydrogeological connection/linkage to the Natura

2000/conservation/protection areas located at the Northwest Irish Sea SPA, located c. 1.7km east of the development at the point of closest proximity.

According to the EPA (now incorporating the Radiological Protection Institute of Ireland) the site location is in a Radon Zone Area where it is estimated that more than twenty per cent of the homes in this 10km grid square are estimated to be above the Reference Level, thereby indicative of a High Radon Area (source: pre-May 2022 Radon Map). The Radon risk map indicates that About 1 in 20 homes in this area is likely to have high radon levels in this area.

There will be a loss of land available for greenfield/agricultural use due to the development. However, the area of development is relatively small in the context of agricultural land available in the overall region. This change of land use has already been established for the permitted zone of residential development.

Levelling of the ground and excavation for foundations (c. 75,038 m³) for the main buildings will require the excavation of topsoil, subsoil and potentially bedrock (if encountered). It is anticipated that c. 19,507 m³ of this excavated soil and stone will be reused on site. It is anticipated that c. 55,531 m³ of excavated material will subsequently need to be removed off site and disposed of at a fully authorised soil recovery facility. Import of c. 74,754 m³ of clean engineering fill material will be required.

The expected average depth of excavation is approximately 2.0 mBGL.

There will be a local loss of agricultural soil; however, the area of development is small in the context of the overall agricultural land available in the region. The entire site is zoned for development. Within the overall context of Ireland's available farmland, the loss is negligible. There will be no impact to mineral resources in the area as a result of the proposed development.

Without the consideration of mitigation measures, the construction phase of the proposed development will likely have a negative, short-term, slight impact without mitigation in place.

In the absence of mitigation measures, the operational phase of the proposed development will likely have a **neutral, imperceptible, and long-term** impact on land, soils, geology and hydrogeology in the receiving environment.

A Preliminary Construction & Environmental Management Plan (CEMP) has been prepared in respect of the proposed development by Paul McGrail Consulting Engineers Ltd, included (See Appendix D, Volume III of the EIAR). It contains the best practice measures and protocols to be implemented during the construction phase of the proposed development to avoid / minimise environmental impacts, as well as any additional measures required pursuant to planning conditions which may be imposed. This document outlines the best practice construction techniques and methodologies which will be implemented onsite during construction of the proposed development including measures to protect waterbodies. The CEMP sets out the proposed procedures and operations to be utilised on the proposed construction site to protect water quality. The mitigation and control measures outlined in the CEMP and this EIAR will be employed on site during the construction phase by the Contractor.

The CEMP and mitigation measures set out in this EIAR will be implemented and adhered to by the construction Contractor and will be overseen and updated as required if site conditions change by the Project Manager, Environmental Manager and Ecological Clerk of Works where relevant. All personnel working on the site will be trained in the implementation of the procedures.

During the operational phase of the proposed Project, there is limited potential for Site activities to impact on the geological and hydrogeological environment of the area. There will be no impact on local or regional groundwater resources (abstraction) as a result of the proposed Project.

The proposed development does not include for any bulk chemical storage including fuel storage. As the site will be paved and drained, any fuel spills from cars will drain to the hydrocarbon interceptors on the stormwater drainage system. All stormwater drainage is through the permitted attenuation.

The proposed development design includes hardstand cover across the site and the proposed surface water drainage system for this development has been designed as a sustainable urban drainage system (SuDS). The surface water design has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works and Sewers for adoption. The drainage network will consist of attenuation to the green-field runoff using a flow control device (hydrobrake) from the site. Any localised car leaks will therefore be intercepted by and discharge to the proposed surface water / stormwater drainage network and be treated in Petrol interceptors (oil separators) prior to outfalling into the main system and downstream catchment. Therefore, the risk of accidental discharge has been adequately addressed through design. The purpose of these SuDS features is to treat runoff and remove pollutants to improve quality, restrict outflow and control quantity and increase overall amenity value.

For further information on the surface water (stormwater) drainage design / strategy, refer to Chapter 6-Hydrology.

The implementation of the mitigation measures will ensure that targeted rates of impact to land, soils and ground water are achieved at the site of the Proposed Development during construction and operational phases. When mitigation measures are implemented throughout construction the predicted impact on the environment will be short-term, imperceptible, and neutral. With the measures outlined in the EIAR and CEMP, the predicted impact will be **neutral, imperceptible, and short-term**.

3.4 WATER, HYDROLOGY, HYDROGEOLOGY

The development will consist of the construction of 815 no. dwellings, open space, ancillary infrastructure, community/retail floorspace and 2 no. creches on an overall combined site area of 24.91 hectares and on multiple portions of separate parcels of land characterized by an agricultural function located at Flemington Lane in Balbriggan, North Co. Dublin.

The development site is located approximately 1.6 km west of the Balbriggan district town centre. The subject development is partially bounded by the Clonard Road (regional Route R122) and Bridgefoot and adjacent agricultural lands to the south and west, respectively. The site is bounded by Flemington Lane and agricultural lands to the north and by Taylor Hill Grange Residential Estate, among other adjacent / neighbouring residential housing estates to the east.

The site comprises multiple fields separated by internal and boundary hedgerows. Surface water, rainfall, is generally percolated to ground or runs-off via overland flow towards onsite drainage ditches and the Clonard Brook Stream in the south of the site.

The topography is relatively consistent with the site generally falling in elevation from northeast to southwest and characterized by minor localized undulations. The elevation falls from approximately 47m AOD (Above Ordnance Datum) to approximately 42m AOD from northeast to southwest. A portion of the central western section of the site located adjacent to the Clonard Road lies on elevated land at approximately 66m AOD. The topography in the southern portion of the site slopes / falls towards the Clonard Brook Stream / surface watercourse which flows to the south of the site, flowing in an east-northeast direction towards the Irish Sea at Balbriggan (EPA, 2025).

According to the EPA maps, the entire proposed development site lies within the Nanny-Delvin Catchment (Catchment ID: 08). The main hydrological feature of the area is the Bremore River and its tributaries, the Clogheder Stream and Clonard Brook Stream (CLONARD_or_FOLKSTOWN_GREAT). The Bremore River outfalls / discharges to the Irish Sea (North-West Irish Sea SPA) north of Balbriggan Town Centre approximately 1.7 km east of the subject development (linear distance).

The site is drained by ditches which may convey flow to the east/southeast towards the Clonard Brook Stream, the Clogheder Stream and Bremore River during periods of heavy rainfall. These manmade

ditches only serve the subject site and the agricultural fields immediately west and does not convey any upstream watercourse.

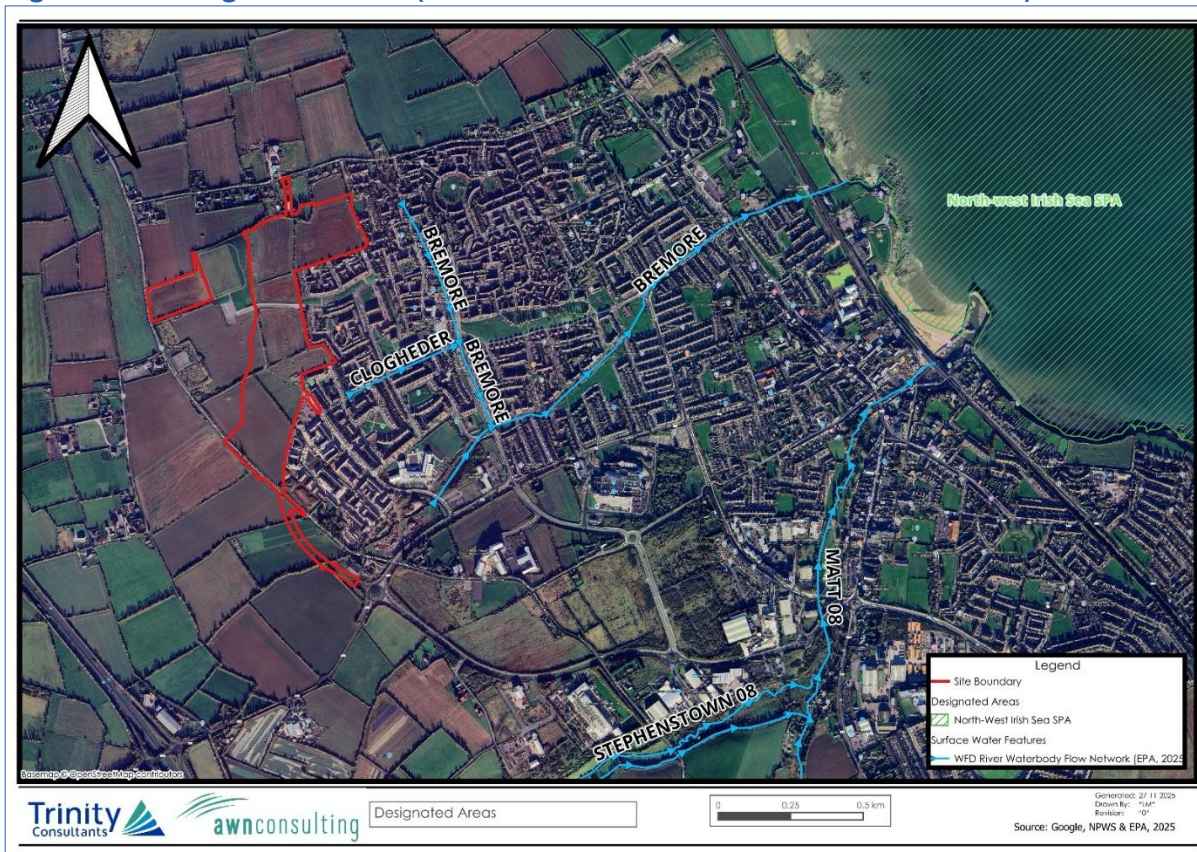
According to the NPWS (2025) on-line database there are no special protected areas (SPA) or special areas of conservation (SAC) on or within the boundary of the proposed development site. The lands in which the development is located have no formal designations.

In addition, there is a potential indirect hydrological pathway / connection to nationally designated sites in North-West Irish Sea via the Clonard Brook Stream and Bremore River which flow in an east/northeasterly direction before its outfall to the Irish Sea. The relevant natura 2000 site is:

- North-West Irish Sea SPA (Site Code: IE004236) c. 1.7 km to the east of the site.

It is noted that based on the significant distance and dilution (mixing) factor downstream/downgradient in the catchment and along the potential pathway to these receptors there is no likelihood of an accidental release of hydrocarbons or silt from the proposed development resulting in any change in surface water quality contributing to these habitats.

Figure 3.2: Designated Areas (Natura 2000 Conservation / Protected Sites)



3.4.1 RATING OF IMPORTANCE OF HYDROLOGICAL ATTRIBUTES

Based on the TII methodology (2009) (See Appendix 6.1) the importance of the hydrological features at this site is rated as 'Medium' importance based on the assessment that the attribute has a hydrological connection with protected European Sites and the attribute has a medium/moderate quality or value on a local scale. The lands are not an area of water supply, within a flood zone or an amenity area.

There is an objective (WFD) to maintain Good status or not impact on programme of measures to achieve Good status of this surface water receptor (Bremore River / Clonard Stream / Matt_010) during construction and operation.

In summary, the proposed development will consist of the following:

- Construction of 815 no. dwellings, open space, community/retail floorspace and 2 no. creches on an overall site area of 24.91 hectares.
- The development includes the provision of C-Ring Road to link into the existing R122 roundabout with vehicular access also from the Boulevard, Hamlet Lane, & Flemington Lane.
- Provision of surface water attenuation measures, connection to water supply, provision of foul drainage infrastructure to Irish Water specifications and all ancillary site development, construction, and landscaping works;
- The proposed development includes a SuDS drainage design, boundary treatments, lighting, servicing and utilities, signage, and associated and ancillary works, including site development works above and below ground. All ancillary site development, landscaping and construction works to facilitate foul, water and service network connections.

With design measures in place, the impact on surface water flow and quality are **neutral, imperceptible, and long-term**.

A reduction in water quality via unmitigated pollutants entering the onsite local drainage ditches, Bremore River or its tributaries, the Clogheder Stream and Clonard Brook Stream has the potential to lead to negative impacts on human health and populations. Hydrocarbons and petroleum products for example have the greatest risk for human health when they are in drinking water. However, it is noted that there are no recorded Recreational Waters, Bathing Waterbodies, or Surface Water Drinking RPA, located downstream in the Clogheder Stream, Clonard Brook Stream and Bremore River. However, as yet unknown recreational, bathing or surface water abstractions may exist.

The potential for unmitigated off-site flooding as a result of the increased hardstanding areas will not have potential to impact on human health, populations, and material assets.

In the absence of mitigation measures the potential impacts during the operational phase on human health and populations due to changes to the hydrological environment are **negative, not significant and long term**.

The design has taken account of the potential impacts of the development on the hydrological environment local to the area where construction is taking place and containment of contaminant sources during operation. Measures have been incorporated in the design to mitigate the potential effects on the surrounding water bodies. This section outlines the measures that will be employed in order to minimise the impact on land, soils, and groundwater of the proposed development.

The implementation of the mitigation measures outlined above in Section 6.6 of this chapter will ensure that targeted rates of impact to hydrology (Quality, Quantity and Flow) are achieved at the site of the Proposed Development during construction and operational phases. When mitigation measures are implemented throughout construction the predicted impact on the environment will be short-term, imperceptible, and neutral. With the measures outlined in the EIAR and CEMP, the predicted impact will be **neutral, imperceptible, and short-term**.

The implementation of the mitigation measures detailed above in Section 6.6, will ensure that the potential impacts on hydrology (Quality, Quantity and Flow) once the proposed development is constructed and operational are adequately mitigated. The residual effect on surface water quality, quantity and flow during the operational phase is considered to be **neutral, imperceptible, and long-term**.

3.5 AIR QUALITY

The assessment of Air Quality is contained within Chapter 7 Volume II of the EIA. The air quality assessment has focussed on:

- Potential construction dust emissions and impacts to nearby sensitive receptors such as residential properties, schools, hospitals, etc.
- Potential vehicle emissions from traffic accessing the site for construction works and during operation.

Baseline data and data available from similar environments indicates that levels of nitrogen dioxide (NO₂), particulate matter less than 10 microns (PM₁₀) and particulate matter less than 2.5 microns (PM_{2.5}) and are generally well below the current National and European Union (EU) ambient air quality standards.

In the Do Nothing scenario, the site will remain unchanged, and air quality will follow existing trends. These trends may be influenced by nearby developments and traffic. Since the site is zoned for development, a similar project is likely to be built in the future. As a result, air quality impacts are expected, even without the proposed development and will be **direct, long-term and negative** which is overall **not significant**.

An assessment of the potential dust impacts as a result of the construction phase of the proposed development was carried out based on the UK Institute for Air Quality Management 2024 guidance document 'Guidance on the Assessment of Dust from Demolition and Construction'. This established the sensitivity of the area to impacts from construction dust in terms of dust soiling of property and human health effects. The surrounding area was assessed as being of high sensitivity to dust soiling and of medium sensitivity to dust-related human health effects.

The sensitivity of the area was combined with the dust emission magnitude for the site under four distinct categories: demolition, earthworks, construction and trackout (movement of vehicles) to determine the mitigation measures necessary to avoid significant dust impacts. It was determined that there is a high risk of dust related impacts associated with the proposed development. In the absence of mitigation there is the potential for **direct, short-term, negative** and **slight** impacts to air quality, which is an overall **not significant** impact in EIA terms.

In addition, construction phase traffic emissions have the potential to impact air quality, particularly due to the increase in the number of HGVs accessing the site. Construction stage traffic did not meet the scoping criteria for a detailed modelling assessment outlined in Transport Infrastructure Ireland's 2022 guidance document 'Air Quality Assessment of Specified Infrastructure Projects – PE-ENV-01106'. As a result, a detailed air assessment of construction stage traffic emissions has been scoped out and the construction stage traffic emissions will have a **short-term, neutral** and **imperceptible** impact on air quality, which is an overall **not significant** impact in EIA terms.

Operational phase traffic has the potential to impact air quality due to vehicle exhaust emissions as a result of the increased number of vehicles accessing the site. Operational stage traffic emissions were calculated at representative worst-case receptors in the area, and it was determined that concentrations of NO₂, PM₁₀ and PM_{2.5} will increase by an imperceptible amount as a result of the proposed development. Operational stage traffic emissions will have a **long-term, direct, localised, negative** and **not significant** impact on air quality.

There is the potential for cumulative impacts to air quality should the construction phase of the proposed development coincide with that of other developments within 500 m of the site. A review of proposed/permitted developments in the vicinity of the site was undertaken.

The dust mitigation measures outlined in Section 7.8.1 of Chapter 7 will be applied during the construction phase which will avoid significant cumulative impacts on air quality. With appropriate mitigation measures

in place, the predicted cumulative impacts on air quality associated with the construction phase of the proposed development is deemed **direct, short-term, negative** and **not significant**.

Operational phase direct impacts on air quality associated with the proposed development and cumulative traffic emissions are predicted to be **long-term, direct, localised, negative** and overall, **not significant**.

Overall, no significant cumulative impacts to air quality are predicted during the construction or operational phases of the proposed development.

Detailed dust mitigation measures are outlined within Section 7.8.1 of Chapter 7 to ensure that no significant impacts as a result of construction dust emissions occurs at nearby sensitive receptors. Once these best practice mitigation measures, derived from the Institute for Air Quality Management 2024 guidance '*Guidance on the Assessment of Dust from Demolition and Construction*' as well as other relevant dust management guidance, are implemented the impacts to air quality during the construction of the proposed development are considered, **short-term, direct, negative** and **imperceptible**, which is overall **not significant** in EIA terms, posing no nuisance at nearby sensitive receptors (such as local residences).

No site-specific mitigation measures are proposed for the operational phase. The impact to air quality has been assessed as **long-term, direct, localised, negative** and overall, **not significant**.

When the dust mitigation measures are implemented, the residual effect of fugitive emissions of dust and particulate matter from the site will be **short-term, direct, localised, negative** and **not significant**.

The impact to air quality during the operational phase of the proposed development as a result of emissions from vehicles accessing the site have been assessed as having a **short-term, direct, localised, negative** and **not significant**.

Monitoring of the dust mitigation measures will be required as set out in Section 7.10 of Chapter 7. The monitoring requirements will ensure that the dust mitigation measures are working satisfactorily.

3.6 CLIMATE

Ireland declared a climate and biodiversity emergency in May 2019 and in November 2019 there was European Parliament approval of a resolution declaring a climate and environment emergency in Europe. This, in addition to Ireland's current failure to meet its EU binding targets under Regulation 2018/842 (European Union, 2018) results in changes in GHG emissions either beneficial or adverse being of more significance than previously considered prior to these declarations.

In May 2025, the EPA released the report *Ireland's Greenhouse Gas Emissions Projections 2024-2055* (EPA, 2025b), which includes total projected emissions and a breakdown of projected emissions per sector under the 'With Existing Measures' and 'With Additional Measures' scenarios. The EPA projections indicate that currently implemented measures (With Existing Measures) will achieve a reduction of 10% on 2005 levels by 2030, significantly short of the 42% reduction target. If measures in the higher ambition (With Additional Measures) scenario are implemented, EPA projections show that Ireland can achieve a reduction of 22% by 2030, still short of the 42% reduction target.

Historical records show Dublin has experienced several severe storms, with wind speeds exceeding 100 km/h, including a record set during Storm Éowyn in January 2025, which reached 142 km/h in Galway. Storm activity is concentrated in winter (December–February), with an average of eight named storms annually (Met Éireann, 2025). Analysis of data from Dublin Airport (1962–2020) indicates a mean 10m wind speed of 10 knots (18 km/hr) and maximum gusts ≥ 60 knots (111 km/h).

Overall, the baseline climatology for the project site and region shows evidence of high rainfall across the year high. Mild winters with average minimums $>3^{\circ}\text{C}$ and relatively mild summers with average maximums of 18°C however, this maximum is not significant for extreme heat or prolonged drought impacts.

Ireland is already experiencing increased annual rainfall in the north and west, with more variable patterns in the south and east including the area of the proposed development (EPA, 2021b). Key risks identified by the EPA relevant to the proposed project include:

- Increased likelihood of more frequent and intense North Atlantic low-pressure systems bringing high rainfall and high winds.
- More intense rainfall periods which may lead to pluvial flooding and elevated fluvial levels.
- Longer dry spells and increased temperatures.

In the Do-Nothing scenario, the site will remain as per the baseline and will change in accordance with trends within the wider area, including influences from potential new developments in the surrounding area, changes in road traffic, etc.

As the site is zoned for development, it is likely that in the absence of the proposed development a development of a similar nature would occur in the future. Therefore, the predicted greenhouse gas emissions associated with the construction and operation phases are likely to occur regardless of the specific proposed development. Climate change is being driven by broader, long-term global trends in greenhouse gas concentrations, which will continue irrespective of any localised development. This assessment focuses on the contribution of the proposed development to the overall emissions and considers mitigation measures to minimise its climate impact.

The proposed development has been designed to reduce the impact to climate where possible. Several measures have been incorporated into the design to ensure the operational phase emissions are minimised. The primary elements with respect to reducing climate impacts and optimising energy usage are based on information provided by ENX in the Climate Action and Energy Statement report.

The project is aligned with the following criteria from Table 8.4:

- The project's GHG impacts are mitigated through 'good practice' measures.
- The project has complied with existing and emerging policy requirements; and
- Fully in line to achieve Ireland's trajectory towards net zero.

In accordance with the EPA guidelines (EPA, 2022), this equates to a **direct, long-term, negative and slight** effect, which is overall **not significant** effect of GHG emissions during the construction and operational phase.

Several measures have been incorporated into the design of the development to mitigate against the impacts of future climate change. For example, integration of SuDs and nature based solutions to adequately dispel water and reduce the runoff rate of rainfall into drainage systems resulting in a robust flood management and drainage design. These measures have been considered when assessing the vulnerability of the proposed development to climate. Landscaping planting elements have been chosen with consideration for climate change impacts in future years.

In relation to operational energy usage information from the Climate Action and Energy Statement prepared for the proposed development has been used to inform this assessment. The proposed development will be Nearly Zero Energy Building (NZEB) compliant in line with the *Technical Guidance Part L (2022) of the Building Regulations* requirements for the residential elements and Technical Guidance Part L (2022), buildings other than Dwellings for the creche and pavilion. As per the Climate Action and Energy Statement the following key elements will be included in the design parameters.

Embodied carbon of materials and construction activities will be the primary source of climate impacts during the construction phase.

The project developer, Glenveagh Properties, has committed to achieving Net Zero by 2050 across its whole business. Therefore, the proposed development will be built with carbon reduction and sustainability in mind and will include reductions of embodied emissions during the construction phase. Glenveagh Properties have published a Net Zero Transition Plan and Annual Reports which detail a commitment to achieving Net Zero by 2050.

The above listed measures are supported by Glenveagh Properties PLC's Net Zero Transition Plan 2023, published in March 2023, which identifies the sources of Glenveagh Properties PLC's emissions and proposed measures to reduce these. A commitment to achieve a 55% reduction in Scope 3 (construction methods) emissions intensity (tCO₂e per 100 m² of complete floor area) by 2031 (using 2021 as the baseline year) will involve supplier engagement to make informed procurement decisions, engaging with subcontractors to support their transition to less carbon intensive fuels (diesel and gas oil is currently the norm) and investing in innovation of designing and building homes to reduce their associated embodied carbon. A reduction target of 46.2% by 2031 is also set in the plan for Scope 1 and 2 emissions (company operations). All targets have been validated by the Science Based Targets initiative (SBTi).

The proposed development has been designed to reduce the impact on climate due to energy usage during operation. No further operational phase mitigation is proposed.

The impact to climate due to a proposed development must be assessed as a whole for all phases. The proposed development will result in some impacts to climate through the release of GHGs. TII reference the IESP guidance which states that the crux of assessing significance is "*not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050*". The proposed development has proposed best practice mitigation measures (as outlined in the EIAR and is committing to reducing climate impacts where feasible. As per the assessment criteria the residual impact of the proposed development in relation to GHG emissions is considered minor adverse, this equates to a **direct, long-term, negative** and **slight**, impact which is overall **not significant** in EIA terms.

In relation to climate change vulnerability, it has been assessed that there are no significant risks to the proposed development due to climate change. The residual effect of climate change on the proposed development is considered **direct, long-term, negative** and **imperceptible**, which is overall **not significant** in EIA terms.

The traffic data used for the operational phase assessment included cumulative traffic from existing and permitted developments in the surrounding area. Therefore, this impact assessment is cumulative. A full list of developments considered for the cumulative impact during the construction and operational phase of the development can be found in chapter 17 of the EIAR. All relevant developments and their cumulative impacts have been considered for the construction and operational phases.

As per the above, the cumulative impact of the proposed development in relation to GHG emissions is considered **direct, long-term, negative** and **slight**, which is overall **not significant** in EIA terms.

3.7 NOISE AND VIBRATION

The proposed development currently comprises of greenfield lands. A full description of the development is provided in Chapter 2: Description of the Proposed Development. The site is to be located in the western part of the town of Balbriggan, County Dublin.

The site is bordered by a series of individual houses to the north on Flemington Lane, numerous residential estates to the east and southeast and agricultural lands to the southwest and west.

An environmental noise survey has been conducted to quantify noise emissions across the existing site. The external survey was conducted in general accordance with ISO1996-2:2017 *Acoustics - Description, Measurement and Assessment of Environmental Noise -- Determination of Environmental Noise Levels*. Specific details are set out in the following sections.

The monitoring locations were as follows:

- **AN1** was positioned to capture the baseline noise environment of the adjacent residential area, Flemington Park.
- **AN2** was located to assess the baseline noise levels near the residential estates of Hastings Lawn and Bremore Pastures Park.
- **AN3** was situated to monitor noise levels near the residential estates of Tayler Hill Gardens and Folkstown Park Avenue.

In addition, one unattended monitoring location, **UN1**, was installed on the development site itself, overlooking Clonard Road (Local Road) —the primary noise source in the area. The purpose of UN1 was to measure the noise levels directly affecting the proposed development.

The weather during the survey periods was generally dry and calm and was not considered to have had a detrimental effect on the noise measurements.

In the absence of the proposed development being constructed, the noise environment at the nearest noise sensitive locations and within the development site will remain largely unchanged resulting in a neutral and local impact in the long-term.

Moreover, if the current proposal were not developed, then it is likely that one similar in nature would be proposed, in line with the national policy of promoting compact growth on brownfield sites and the sites zoning designations that support development of the site for residential and mixed uses.

During the construction phase, a variety of items of plant will be in use for the purposes of demolition, site clearance and construction. The type and number of equipment will vary between the varying construction phases and depending on the phasing of the works. There will be vehicular movements to and from the site that will make use of existing roads. Due to the nature of these activities, there is potential for the generation of elevated levels of noise.

During the operational phase, the potential sources of noise are those associated with additional vehicular traffic on public roads, operational plant and building services, and vehicular movements.

Noise and vibration emissions from the proposed development will vary both in terms of duration and magnitude. The following sections analyse the expected construction and operational phase noise and vibration impacts, both in terms of the proposed assessment criteria and the expected impacts in terms of the significance of effects.

The existing buildings and associated structures within the site will be demolished. There will be periods when breakers will be required to break out foundations and solid structures. For this specific activity a total construction noise level of 92 dB L_{Aeq} at 10m has been used for the purposes of indicative calculations. For construction work areas with lower noise levels such as those associated with superstructure works including site compounds (for storage, offices and material handling, generators etc.), smaller items of mobile plant (excavators, cranes, dozers), landscaping and concreting works with lower noise emissions, a total construction noise level of 80 dB L_{Aeq} at 10m has been used for the purposes of indicative calculations. This would include, for example two items of plant at 75 dB L_{Aeq} and three items of plant at 70 dB L_{Aeq} operating simultaneously within a work area.

During the construction phase, traffic associated with the proposed development would consist of a mix of Light Goods Vehicles (LGVs) and Heavy Goods Vehicles (HGVs) travelling to and from the site.

It is noted that in order to increase traffic noise levels by 1 dB, traffic volumes would need to increase by the order of 25%. It is forecast that additional traffic introduced onto the local road network due to the construction stage of the development will not introduce a level of traffic that would result in a volume change in excess of 25% on the surrounding road network and the expected impact is therefore **negative, not significant and short-term**.

Once the proposed development is operational, the potential noise impacts to the surrounding environment are predicted to be minimal. The residential aspect of the development is not expected to generate any significant noise sources over and above those which form part of the existing environment at neighbouring residential areas (road traffic noise, estate vehicle movements, children playing, etc.).

The main potential noise impact associated with the proposed development is considered, therefore, to relate to the generation of additional traffic to and from the site as a result of the new residential buildings. Potential noise impacts also relate to operational plant serving the apartment buildings, where relevant. Once operational, there are no noteworthy sources of vibration associated with the development site.

Due consideration must be given to the nature of the primary noise sources when setting criteria. Potential noise impacts during the operational phase include the following:

- Additional vehicular traffic on surrounding roads;
- Building services plant;
- Crèche playground area;

Additional Vehicular Traffic on Surrounding Roads

For the purposes of assessing the potential noise impact, it is appropriate to consider the relative increase in noise level associated with traffic movements on existing roads and junctions with and without the proposed development, given that traffic from the development will make use of the existing road network.

Best practice noise and vibration control measures will be employed by the contractor during the construction phase in order to avoid significant impacts at the nearest sensitive buildings.

The use of best practice noise control measures, hours of operation, scheduling of works within appropriate time periods, and noise monitoring during this phase will be implemented. With the inclusion of the various noise and vibration control measures on site it is expected that calculated noise levels in Table 9.14 can be reduced by 5 to 10 dB.

An overall **negative, slight to moderate and brief** impact associated with these works.

During all other construction phases, noise levels can be controlled resulting in a **negative, slight to moderate and short-term impact**.

The proximity of the construction works outlined above, indicates that at the nearest NSLs it is possible that cumulative impacts could occur at the nearest receptors should all sites progress construction simultaneously. Chapter 17 of the EIAR outlines the potential cumulative projects (table 17.1 refers). In this scenario elevated construction noise emissions due to cumulative noise are potentially likely to occur at receptor locations as well as a potential increase in the length of time that the receptor will be exposed to construction noise. However, this would only occur during peaks in construction noise over short periods. Hence, cumulative construction impacts will need to be considered and managed during the construction phase. It is recommended that liaison between construction sites is on-going throughout the duration of the construction phase. Contractors should schedule work in a co-operative effort to limit the duration and magnitude of potential cumulative impacts on nearby sensitive receptors. Cumulative construction noise impacts are expected to be **negative, moderate to 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.

3.8 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

The Application Site comprises 24.91 hectares and is an irregular landholding stretching predominantly in a north-south trajectory between Flemington Lane to the north and the more recent Boulevard Road to the south. To the east, the site abuts recently completed housing estates including those off Taylors Hill, Benmore Pastures and Flemington Park.

The site is set across a mainly rural landscape located on the Balbriggan urban periphery, which is largely managed farmland, and, in broad terms, the landscape value and quality would be categorised as medium based on its “everyday” character and undesignated status in landscape or amenity terms. The gently rolling landscape, while attractive in its own right does not possess many notable features other than lower quality field boundaries made up of mixed quality hedgerows and trees which would not be considered unique or rare in this part of Ireland. The cores of the fields are intensely managed arable lands or remnant fields and there is little in the way of any species or landscape diversity away from hedgerows and ditches that would result in a higher category of value.

West Balbriggan is characterised by extensive housing estates that have been built out over incrementally the last couple of decades with retail and institutional lands and development aligning the main roads leading from the town centre. Where the urban edge meets the rural landscape, there are often formal and abrupt edges with the adjacent fields being subject to differing management regimes. The developments within the Hastings, Benmore and Taylors Hill estates include properties that back or side onto the Application Site lands and there are variable landscape treatments along the collective boundary which often has resulted in a disjointed and visually poor boundary definition to the rural countryside. However, the Application Site displays no visible signs of anti-social behaviour that are often associated with rural landscapes on town edges.

Site surveys were undertaken between March and August 2025 to establish locations where there are potential views of the proposed development or where key visual receptor groups might visit, work or stay and any general movement through the area. In visual amenity terms, the site is rated as having low sensitivity on account of a limited visual envelope due to a combination of the built-up townscape towards Balbriggan and the low rolling topography and accumulation of mature hedgerows in other directions. Longer views are afforded from elevated or exposed areas to the south of the town, but these are of a distant or partial in nature and, in overall terms the Application Site is well concealed from public vantage points. From the majority of areas in west Balbriggan, it would be considered that the site has a good ability to absorb changes without significant detriment to landscape and townscape character or the visual amenity of this area.

The lands are primarily zoned “RA – Residential Area” with part zoned “OS - Open Space” in the Fingal County Development Plan 2023-2029 and the design objective has to be to tie in with these objectives and the associated policies.

There is likely to be Temporary Moderate Adverse effects during the construction period due road construction, new accesses and hedgerow removal to facilitate key access points from Flemington Lane and the subsequent residential development. The removal of 34 no. trees and 1,639m of internal hedgerows will have slight adverse effects but their condition is not rated as high in aesthetic or condition terms, and they have not been subject to any management for some time and the Tree Survey (Charles McCorkell) noting long sections were swamped by brier.

The proposal will result in permanent changes to the landscape character of the Application Site due to change from open fields or farmland which would be replaced by built townscape that will essentially

change its context to a residential and urbanised area. The collective development will have Major effects to the character and sense of place across the site. However, the significance of effect is reduced or muted due to the majority of the site is not one that would be considered a pristine landscape or one of a very sensitive nature (as noted in the Development Plan and hence its “RA – Residential Area” designation) due to current land-use and its location on the urban / rural interface.

Further the landscape effects would not necessarily be one of an adverse nature on account of the significant landscape and public open space and landscape development with these areas equating to 5.26 hectares (over 20%) of the Application Site. While this total includes 0.56 hectares of residual or environmental lands, the key public open spaces made up of new parks, play areas, amenity areas and Class One lands would contribute significantly to the local landscape character. The associated planting entails 466 no. semi-mature’ or ‘extra-heavy standard’ size trees, 2.068km of native hedgerow, the augmentation of 907m of existing hedgerows and wooded structure / belts and amenity planting (4,280m²). The low-lying topography and existing vegetation ensure the majority of areas within the Balbriggan area will experience no or negligible effects due to the proposal being visually obscured or not being a significant factor in any view or association with any visual amenity provision.

While recognising there are localised significant landscape and visual impacts, the proposed development, while sizeable, can be accommodated and absorbed into this part of Balbriggan without causing significant detrimental or unacceptable landscape or visual effects.

3.9 MATERIAL ASSETS - TRAFFIC AND TRANSPORTATION

With regard to traffic impact assessment, the Study Area of this EIAR chapter has included the section of Boulevard Road and Hamlet Lane that currently connects to the site. Flemington Lane and the L1130, both of which will have a new connection into the site in the future are included in the study area (see chapter 17 Volume II of this EIAR chapter presents the expected impact of the proposed development on the traffic volumes, with the outputs thereof feeding into other EIAR chapters. The Study Area includes the part of the regional road network directly receiving the traffic generated by the proposed development, which will subsequently distribute to other parts of the wider road network. Such definition of the Study Area is aligned with best practice. It should be noted that this EIAR Chapter has examined the application site’s mobility-related characteristics with respect to a wider area of interest, including the entirety of Balbriggan Town.

The Flemington site is located west of Balbriggan, on lands bounded by residential lands in the south, a local road, L1130 in the west, the planned Balbriggan Ring Road through the centre, Flemington Lane to the north and additional residential to the east. The site is a ca 24.91 hectare greenfield site and has been zoned predominantly ‘RA – Residential’ in the Fingal Development Plan 2023-2029.

It should be noted that the current proposed development will replace and supersede the permitted development on the subject lands. Furthermore, the proposal includes delivery of the entire C-Ring Road section from the R122 roundabout in the south to Flemington Lane in the north, rather than just the section within the application site boundary as previously permitted (as per ABP Ref. LH06F.319343). The proposal would also see an increase in the total number of residential units across the site from 564 no. (as per ABP Ref. LH06F.319343) to 815 no. units (an increase of 251 no. units). Residential amenities such as two creches, a 730 sqm community pavilion and a 419 sqm retail unit are also part of the proposal. The approach pursued herein is consistent with that applied for the preceding permitted development and the associated TTA.

Footpaths are provided along most roads in urban Balbriggan, including the R122 and Boulevard Road in the application site’s vicinity. However, footpaths are missing along the L1130, which form parts of the site’s western boundary as well as the western section of Flemington Lane. Dedicated cycling infrastructure in the site’s general vicinity includes segregated tracks provided on the R122 and Boulevard Road.

The site can be reached by walking from a variety of locations within Balbriggan, with the extent of the 60 minutes' isochrone reaching Balrothery in the South, Newtown in the west and Bremoore in the north. It is deemed that walking represents a viable option for those residing in Balbriggan.

The available public transport services enable access across Balbriggan and to Dublin City Centre, Drogheda, Swords and all towns along the coastal railway line in under 60 minutes. Central Dublin can also be accessed using the 191 service, albeit only in the morning peak, with returns in the evening peak. There is also a local link 192 bus linking Swords to Balbriggan with 10 services a day as well as a local link 195 bus connecting Balbriggan to Ashbourne with 5 services a day from Balbriggan.

The proposed residential units will be accompanied by associated pedestrian, cycle, and car circulation and parking facilities as well as various open space and recreational areas. Furthermore, the mobility needs of the development's future residents will also be supported by a comprehensive and tailored package of measures (including a MMP) aimed at enabling and promoting use of sustainable transport modes, and facilitating them in living low-car owning and car-free lifestyles. The commercial and community spaces included in the proposed development is intended to primarily serve local catchment.

The internal road network has been designed with a focus on safety to ensure a self-enforcing low speed environment. The features applied to do so include road deflections, raised junctions, and raised crossings points. The internal roads feature sections with a formal carriageway as well as shared space sections, which would be designated as homezones. The application of shared spaces provides a tangible indication of road hierarchy. Moreover, filtered permeability principle has been applied to facilitate convenient circulation of pedestrians and cyclists without encouraging travel by car. The design is noted to be compliant with DMURS.

The proposed Flemington South LRD development shall result in a net increase of 251 no. residential units compared to the permitted scheme. To quantify the proposed development trip generation the same TRICS trip rates used for the permitted scheme have been utilised for the proposed development. This ensures consistency with the permitted scheme development traffic approach.

The junctions with the highest % impact are located to the south of the Flemington South LRD site which would reflect the distribution of the majority of the development traffic in this general direction. The following summary of the impact assessment is noted.

- Junction 1, the main impact is noted on the R122 (Arm C). This junction enables access/ egress into/ from the proposed Flemington South LRD and the % impact is not unexpected.
- Some arms of Junctions 2 and 3 indicate negative % impact. This is because some of the background traffic at these junctions has been redistributed to reflect the changed road network in the Do Something due to the opening of the southern section of the C-Ring Road.
- The % impact at the majority of junctions arms is less than 5% (e.g. junctions 4-11 and 13-15). Arm D of Junction 12 is noted to indicate a % impact of ca.6% with the junction's 3 other arms indicating a % impact less than 5%.
- The 3 Site Access junctions are new junctions which are not present in the Do Minimum scenario hence no % impact is provided. These junctions have been design to accommodate the predicted level of future development traffic and provide spare capacity to accommodate future growth in background traffic (see modelling result in Section 11.7.4.4)

The predicted percentage impact is expected to be low to moderate across the local road network.

A detailed Construction Environmental Management Plan (CEMP) will be prepared post-planning by the selected construction contractor expanding on the outline plan, and the document will be submitted for

approval to FCC prior to the commencement of any construction works. The CEMP will include the mitigation contained in this EIAR including the Framework CTMP.

The CTMP will ensure that suitable temporary traffic works, and road safety measures are put in place during the construction phase. The plan will ensure that any required traffic management measures are put in place to minimise the impact on local road users. Construction related traffic will access/ egress the site via the R122 and Boulevard Road initially and then utilise the new C-Ring Road connection to the R122 roundabout when it becomes operational. In general, the impact of the construction period will be temporary in nature and will cease following completion of the works. No significant effects are likely to occur due to construction phase traffic.

The applicant will appoint a dedicated construction manager and construction traffic manager. The construction traffic manager will be required to coordinate and schedule all deliveries to the site, ensure that the access roads are kept clear of mud and debris, advise haulage contractors on the appropriate routes to and from the site, and to adhere to good traffic management principles. In this way, the likely effects of the construction phase can be appropriately managed. No significant effects are expected.

Balbriggan provides suitable infrastructure and transport services to enable travel by sustainable modes. In addition, proposed active travel and public transport improvements planned for Balbriggan shall help to enable sustainable mode choices. A key barrier to modal shift towards sustainable modes of travel is often a lack of information about potential alternatives to the car.

To encourage sustainable transport use and help reduce potential traffic impacts, a Framework MMP has been prepared by Transport Insights and is included within the overall application package. The MMP will implement the mitigation measures set out in this EIAR.

3.10 MATERIAL ASSETS - WASTE

AWN Consulting undertook the waste management assessment. The receiving environment is largely defined by Fingal County Council (FCC) as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

There will be waste materials generated from site clearance works (demolition), excavations, construction of the new development and from the operation of the new development.

During the construction phase the mismanagement of waste, including the inadequate storage of waste, inadequate handling of hazardous waste, the use of inappropriate or insufficient segregation techniques, and the use of non-permitted waste contractors, would likely lead to negative impacts such as waste unnecessarily being diverted to landfill, litter pollution which may lead to vermin, runoff pollution from waste, fly tipping and illegal dumping of waste. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant and negative**.

The potential impacts on the environment during the operational phase of the proposed development would be caused by improper, or lack of waste management. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant and negative**.

During the construction phase, typical construction waste materials will be generated which will be source segregated on-site into appropriate skips/containers, within designated waste storage areas and removed from site by suitably permitted waste contractors as required, to authorised waste facilities, by appropriately licensed waste contractors. While the accurate keeping of waste records will be undertaken. All waste leaving the site will be recorded and copies of relevant documentation maintained.

This will all be overseen by the main contractor, who will appoint a construction phase Resource Manager to ensure effective management of waste during the excavation and construction works. All construction staff will be provided with training regarding the waste management procedures on site.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (**Appendix E Volume III of the EIAR**) and Chapter 12 during the construction phase will ensure that the effect on the environment will be **short-term, neutral and imperceptible**.

During the operational phase, waste will be generated by the commercial tenants and residents. Dedicated waste storage areas (WSA) have been allocated for the development for use by the tenants and residents. The WSAs have been appropriately sized to accommodate the estimated waste arisings from the development. The WSAs have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from staging/collections points, adjacent to the curtilage, by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared and included as part of this submission as **Appendix 12.2**. This OWMP provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, glass, mixed non-recyclables,

garden/green waste, batteries, waste electrical equipment, printer cartridges, chemicals, lightbulbs, textiles, cooking oil, furniture and abandoned bicycles.

Provided the mitigation measures outlined in Chapter 12 are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, neutral** and **imperceptible**.

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place in the area. In a worst-case scenario, multiple developments in the area could be developed concurrently or overlap in the construction phase. Due to the high number of waste contractors in the FCC region, as provided from the National Waste Collection Permit Office and the EPA, there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all of the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate against any potential cumulative effects associated with waste generation and waste management. As such the cumulative effect will be **short-term, imperceptible** and **neutral**.

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current and potential developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate any potential cumulative impacts associated with waste generation and waste management. As such the cumulative effect will be a **long-term, imperceptible** and **neutral**.

3.11 MATERIAL ASSETS: SERVICES, INFRASTRUCTURE AND UTILITIES

This Material Assets chapter relating to Services, Infrastructure and Utilities of the EIAR has been prepared by Paul Mc Grail Consulting Engineers.

Resources that are valued and that are intrinsic to specific places are called “*material assets*”. They may be either of human or natural origin, and the value may arise for either economic or cultural reasons.

This chapter is intended to deal with the physical resources in the environment which may be of either human or natural origin. The objective of the assessment is to ensure that these assets are used in a sustainable manner, so that they are available for future generations, after the delivery of the proposed development. This chapter comprises an assessment of the likely impact of the proposed development on existing surface water, water supply, foul drainage, and utility services in the vicinity of the site as well as identifying proposed mitigation measure to minimise any impacts.

The material assets considered in this chapter of the EIAR include Surface Water Drainage, Foul Drainage, Water Supply, Power, Gas, Telecommunications and Waste. This Chapter should be read in conjunction with all relevant chapters of the EIAR.

The proposed development subject of this application relates to the next phase of development by Glenveagh (and subsidiaries) “Phase 5” to be known as Flemington South

LRD consisting of a residential development at Balbriggan Co Dublin. The proposed development comprises the construction of *inter alia* the following:

The development will consist of the construction of 815 no. dwellings (610 no. houses, 194 apartments & 11 no. later living dwellings), a portion of the C-Ring Road, open space, community building/retail floor space and 2 no. creches on an overall site area of 24.91 hectares.

A description of the proposed development is set out in chapter 2 Volume II of the EIAR and summarised above.

The site of the proposed development is currently a greenfield site. The land is bounded to the East and north (partially) by phase 3 under construction and to the west by Clonard Road.

There is no existing surface water drainage network serving the site. Rainwater currently drains by means of direct infiltration and percolation into the underlying agricultural ground.

The local groundwater flow direction is expected to follow the natural topography and catchment drainage patterns. Greenfield runoff from the site flows in an easterly direction.

It is proposed to discharge surface water from the site to five existing surface water pipes under the ownership of Fingal County Council.

The overall development will be delivered in 3 phases, as set out in Drawing no. A507-DCA-XX-XX-DR-A-041 - Proposed Site Layout – Phasing, prepared by DCA, included with the application. The site will be divided into five surface water catchments, each incorporating attenuation measures to ensure post-development runoff is restricted to the equivalent greenfield runoff rate.

There are no records or evidence of any foul water infrastructure within the proposed site. There are five foul sewer connection points proposed to the existing foul network surrounding the proposed development.

Irish Water/Uisce Éireann records confirm that existing public water supply infrastructure is present within and/or immediately adjoining the proposed development site. All design; construction and site layout proposals must ensure full protection, access and compliance with UE Codes of Practice and Standard Details.

There is no existing gas pipeline located on the subject site but there is Medium and Low-Pressure network located around the proposed development. Refer to Figure 13.6 below for the existing Gas Main Network.

No connections to the natural gas network will be required.

A new substation will be provided to serve this development. The proposed substation will provide power to a few mini pillars which will provide power to the residential dwellings.

The nearest communication network which is provided by EIR located around the proposed development.

The site is a greenfield with no waste facilities. There are currently waste collectors collecting the waste from the dwellings to the East of the development and it is anticipated that during the operational phase a similar plan will be in place.

The surface water design has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works and Sewers (GDSDS). Following consultation with Fingal County Council, there will be provided a detention basin to provide surface water storage volume. The allowable flow rate has been set at the greenfield run off rate. Surface water run-off from the surface water catchment will be attenuated using a Hydrobrake on the surface water outlet from the catchment area.

Surface water runoff from the development would be attenuated to greenfield runoff in accordance with the recommendations of the GDSDS. Surface water run-off from each surface water catchment will be attenuated using a Hydrobrake on the surface water outlet from each catchment.

To protect the ground water, we have also introduced a number of petrol interceptor through the site, and this is addition to the SUDS mitigation index design [see section 3.8 Water Quality Management: Design Methods (Treatment Volume) in the Engineering Services Report].

The foul water drainage system for the proposed development has been designed in accordance with the Irish Water Code of Practice and will be separate to the surface water drainage system. The foul water from the development will discharge via soil vent pipes within the buildings by gravity flow before connecting into the existing separate foul sewer network within the development. The foul sewerage for each house will have a separate connection to the proposed 225mm and 150mm diameter foul sewer along the road.

There is a substation which has been constructed as the previous phase and the power for the proposed development will be fed from this existing ESB substation. The proposed sub stations will provide power to a number of mini pillars which will provide power to the residential dwellings.

During the operational phase, no significant adverse impacts on utilities are predicted, provided that the proposed development is constructed in accordance with best practice and the requirements of the relevant service providers.

Surface water runoff will be attenuated and discharged at greenfield runoff rates, thereby avoiding increases in flood risk downstream. Sustainable Drainage Systems (SuDS) will be incorporated into the design to provide ongoing treatment of stormwater and to protect local water quality.

Foul drainage will be discharged to the existing public sewer network under the control of Irish Water, ensuring no adverse impacts on public health or the receiving environment.

All connections to water, electricity, gas, telecommunications, and other utilities will be carried out in consultation with the respective statutory providers, ensuring adequate capacity and avoiding disruption to existing services.

In the absence of this proposed development, there would be no increased demand on the aforementioned utilities within would be neutral.

The proposed development has been designed and will be constructed in line with best practice and, as such, major accidents and / or natural disasters will be low. The identification, control, and management of risk is an integral part of the design and assessment process throughout all stages of a project lifecycle. Measures to control risks associated with Construction Phase activities are incorporated into the Construction Environmental Management Plan, included in Appendix D of Volume III of the EIAR.

The cumulative effects of the development on material assets have been assessed taking into account other planned, existing and permitted developments in the surrounding area. Chapter 17 provides a list of projects in the vicinity of the project lands.

Cumulatively with other surrounding permitted, planned and existing development, it is predicted that the proposed development will contribute to the improvement of the overall urban environment.

The cumulative effects of the development on the foul, surface water, watermain and waste management systems are anticipated to be short term, neutral, and imperceptible. No significant impacts are anticipated.

In the event of future development adjacent to the proposed development, there are no predicted cumulative impacts arising from the construction or operation phase related to the material assets – built services provided that the other developments implement appropriate mitigation measures.

All possible measures will be taken to avoid unplanned disruptions to any services within the site during construction of the proposed development. It should be noted that a number of mitigation measures are proposed in other chapters of this EIAR, which are collated into Chapter 18 of this EIAR. The mitigation measures contained in Chapter 18 of the EIAR will be incorporated into the Contractor's CEMP.

It should be noted that a number of mitigation measures are proposed in other chapters of this EIAR. Mitigation measures proposed in respect to Material Assets are as follows:

3.12 ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE

The proposed development area is located in the townlands of Flemington and Clonard or Folkstown Great, Parish of Balrothery and Barony of Balrothery East, County Dublin. It is situated c. 1.4km west of the centre of Balbriggan. There are 17 recorded archaeological sites within the study area, of which six are located within the proposed development area. These recorded monuments consist of two enclosures (DU001-033 and DU001-027), an excavation and a pit (DU001-022001-2), a field system (DU001-023) and a miscellaneous excavation (DU001-026).

The pit (DU001-022002) and field system (DU001-023) were discovered during geophysical survey (Nicholls and Shiel 2005, Licence No. 05R0137), followed by archaeological testing (Elliot 2007, Licence No. 07E0057). These features were reconfirmed by testing in 2021 (Bennett 2021:074, Licence No. 21E0298), which also revealed a double ditched enclosure (DU001-033), which dates to either the Bronze Age or the early medieval period.

This assessment has been carried out in order to analyse the archaeological potential of future residential development lands at Flemington, Clonard or Folkstown Great and Cloghader, Balbriggan, County Dublin. There are 17 recorded archaeological sites within the study area, of which six are located within the proposed development area. These recorded monuments consist of two enclosures (DU001-033 and DU001-027), an excavation and a pit (DU001-022001-2), a field system (DU001-023) and a miscellaneous excavation (DU001-026).

Of these sites, the field system (DU001-023) is the most significant, as it is likely to represent early medieval settlement and occupies a relatively large area in the northern part of the development area. This is likely to be activity associated with early medieval archaeology that was excavated prior to residential development to the east of this site.

The holy well (DU001-004) is located to the immediate north of the proposed development area and the site is now very overgrown. This is adjacent to DU001-022001-2 (excavation and

pit), where more subtle archaeological remains of probable prehistoric date, were identified during test trenching in 2007.

Enclosure DU001-033 is partially located in the western portion of the development area and extends into the field to the north. The site does not possess upstanding remains but occupies a high point in the landscape with open and extensive views in all directions.

Enclosure DU001-027 is located in the southern portion of the proposed development area and represents either an early medieval ringfort or a Bronze Age enclosure.

The recorded miscellaneous excavation (DU001-026) comprises a cluster of pits and possible structure, which was identified during testing in 2007. The remains have not been dated.

There are no recorded architectural sites of merit within the proposed development area or within the 250m study area.

A review of the Excavations Bulletin (1970–2025) has revealed that a geophysical survey was carried out within portions of the proposed development area, followed by an extensive programme of archaeological testing in 2007. This work identified 38 varied archaeological sites including enclosures, pits, linear features, and burnt spreads across the wider landscape, including the excavation and pit (DU001-022001-2) and the remains listed as DU001-026. At this time the early medieval field system (DU001-023) was not tested, but test excavations were conducted at this located in 2021 within the proposed development area. Testing confirmed the presence of outlying features associated with this site and also confirmed the presence of the recorded enclosure site (DU001-033), in the western portion of the development area.

A geophysical survey was carried out in the southern part of the proposed development area in 2025, where a new road is proposed. Five potential archaeological anomalies were recorded, one of which is partially located within the proposed development area. This may represent the remains of a burnt mound.

A field inspection has been carried out as part of this assessment, which confirmed the results of the overall archaeological assessment. None of the recorded archaeological sites were found to possess upstanding remains. It is possible that the holy well (DU001-004) may be extant, but the location is heavily overgrown.

Field system (DU001-023) is likely to represent early medieval settlement and occupies a relatively large area in the northern part of the development area. This is likely to be activity associated with early medieval archaeology that was excavated prior to residential development to the south of this site. As shown on Figure 14.8, a large portion of this site will be preserved in-situ within greenspace associated with the development. Further detail is shown on Figure 14.11 where the core of the archaeological site is shown in pink. Some features to the east of the site will be subject to direct, negative (permanent) impacts, which are considered of moderate significance of effect.

Some direct impacts may occur in relation to the landscaping of this area, arising from the construction of the greenspace (tree planting, footpath construction). Prior to the application of mitigation, these have the potential to be direct, negative (permanent) impacts, which are considered of significant significance of effect.

The holy well (DU001-004) is located to the immediate north of the proposed development area and the site is now very overgrown (Figure 14.8). The site will be retained in-situ, but it remains possible that it may be subject to inadvertent direct, negative (permanent) impacts

arising from passing construction activity. Effects have the potential to be of significant significance of effect.

No potential negative impacts upon the architectural resource are predicted as a result of the construction of the proposed development.

The Flemington-Clonard or Folkstown Great townland boundary traverses the proposed development area. It survives as a field boundary. It is proposed to largely preserve this boundary within the proposed development; however, small sections of the boundary will be removed to facilitate roadways. This represents a direct negative (permanent) impact on the cultural heritage resource of slight significance of effect.

During the operation of the development, it is possible that the two preserved monuments (DU001-033 Enclosure and DU001-023 Field System) will be subject to inadvertent direct negative (permanent) impacts, arising from inappropriate groundworks in the greenspaces. Effects, prior to the application of mitigation, may vary from moderate to very significance.

No operational impacts are predicted upon the architectural or cultural heritage resource.

If the proposed development were not to proceed there would be no negative impact on the archaeological, architectural, or cultural heritage resource of the subject lands or cumulatively with other developments.

Following the implementation of mitigation measures, no significant negative impacts are predicted upon the archaeological and cultural heritage resource.

No impacts are predicted upon the architectural heritage resource as a result of the construction of the proposed development.

Following the completion of mitigation measures, there will be a significant positive effect on DU001-033 Enclosure and DU001-023 Field System, as the sites will be preserved in-situ with appropriate heritage interpretation strategy.

The potential cumulative projects are contained in chapter 17, in the vicinity of the proposed development. All proposed developments within the study area have been considered with regards to potential cumulative impacts on the archaeological, architectural and cultural heritage resource. As all archaeological remains within the proposed development area will be preserved in-situ or by record, no cumulative impacts have been identified.

3.13 RISK MANAGEMENT

The Construction Environmental Management Plan, submitted with the application, as well as good housekeeping practices will limit the risk of accidents during construction. Fire safety will be dealt with under the Fire Safety Code at design and construction stage. The estate management company will have responsibility for fire safety during operations. In relation to falls these have been dealt with during design.

Through the implementation of mitigation measures, there are no identified incidents or examples of major accidents and or natural disasters that present a sufficient combination of risk and consequence that would lead to significant residual impacts or environmental effects.

Works on the public road, and the laying of underground pipes would be carried out on behalf of the relevant statutory undertakers and would be subject to separate construction management plans.

The cumulative interactions with Population and Human Health, Land, Soils, Geology and Hydrogeology, Surface Water, Noise, Climate and Air, Material Assets, Traffic and Transport, Landscape and Visual, and Cultural Heritage. However, subject to implementation of mitigation measures, good working practices and codes, the interactions between these areas have been sufficiently considered in relation to risk management.

3.14 DIRECT AND INDIRECT EFFECTS RESULTING FROM USE OF NATURAL RESOURCES

Details of significant direct and indirect effects arising from the proposed development are outlined in Chapters 3-15 which deal with 'Aspects of the Environment Considered'. No significant adverse impact is predicted to arise from the use of natural resources.

3.15 DIRECT AND INDIRECT EFFECTS RESULTING FROM EMISSION OF POLLUTANTS, CREATION OF NUISANCES AND ELIMINATION OF WASTE

Details of emissions arising from the development together with any direct and indirect effects resulting from same have been comprehensively assessed and are outlined in the relevant in Chapters 3-15 which deal with '*Aspects of the Environment Considered*'. There will be no significant direct or indirect effects arising from these sources.

3.16 FORECASTING METHODS USED FOR ENVIRONMENTAL EFFECTS

The methods employed to forecast the effects on the various aspects of the environment are standard techniques used by each of the particular individual disciplines. The general format followed was to identify the receiving environment, to add to that a projection of the "*loading*" placed on the various aspects of the environment by the development, to put forward amelioration measures, to lessen or remove an impact and thereby arrive at net predicted impact.

3.17 TECHNICAL DIFFICULTIES ENCOUNTERED IN COMPILING ANY SPECIFIED INFORMATION

No particular difficulties, such as technical deficiencies or lack of knowledge, were encountered in compiling any of the specified information contained in this report such as that a prediction of impact has not been possible.

4.0 CUMULATIVE IMPACTS

The EIAR where relevant the EIAR also takes account of other development within the area. These impacts have been addressed in the relevant chapters of the EIAR.

To determine traffic impacts in Chapter 11 the traffic generated by the proposed development is combined with the baseline traffic generated by the traffic on the road network in the area. The potential traffic impacts from other developments were also considered in the assessment (e.g. adjacent to the north).

For the noise impact assessment in Chapter 9 the potential noise emissions arising from the proposed development during construction and operation are combined (using cumulative AADT figures from Traffic chapter) with background noise levels (predominantly road traffic) were assessed.

Each of the relevant specialists has considered the potential for cumulative impact in preparing their assessments. While there is the potential for negative impacts to occur during the construction stage of the scheme, with the implementation of the appropriate mitigation outlined in the EIAR, the residual cumulative impact is not considered to be significant.

There will be some short-term impacts during the construction phase as the pipes are laid, particularly in respect of traffic management with regards to sensitive receptors. This may cause local short-term inconvenience and disturbance to residents and business in the vicinity of the works. However, the works would normally be undertaken in sections on a phased/rolling programme so that the number of persons experiencing local inconveniences at any one time is kept to a minimum.

5.0 INTERACTIONS BETWEEN ENVIRONMENTAL FACTORS

5.1 INTRODUCTION

The purpose of this chapter is to highlight the significant interaction between environmental factors, and the cumulative impact this interaction and the proposed development has on the receiving environment. In preparing the EIAR each of the specialist consultants have and will continue to liaise with each other and will consider the likely interactions between effects predicted as a result of the proposed development during the preparation of the proposals for the subject site and this ensures that mitigation measures are incorporated into the design process.

Table 5.1: Matrix of Summary of interactions between the environmental factors

Interaction	Population & Human Health	Biodiversity	Land and Soils	Water	Air Quality/Cli mate	Noise/Vibra tion	Landscape and Visual	MA-Traffic	MA-Waste/Utiliti es	Cultural Heritage	Risk Mgmt
Population & Human Health		x	x	x	✓	✓	✓	x	✓	x	✓
Biodiversity	x		✓	✓	✓	x	x	✓	✓	x	x
Land and Soils	x	✓		✓	✓	✓	x	✓	✓	✓	x
Water	✓	✓	✓		x	x	x	x	✓	x	x
Air Quality/Cli mate	✓	✓	✓	✓		x	x	✓	x	x	x
Noise/Vibr ation	✓	✓	x	x	x		x	✓	x	x	x
Landscap e and Visual	✓	✓	✓	x	✓	✓		x	x	✓	x
MA-Traffic	✓	✓	✓	✓	✓	✓	✓		x	x	✓
MA-Waste/Utiliti es	✓	✓	✓	✓	✓	✓	x	✓		x	x
Cultural Heritage	x	x	x	x	x	x	x	x	x		x
Risk Mgmt	✓	x	✓	✓	✓	✓	x	✓	x	x	

✓ Interaction x No Interaction

6.0 CUMULATIVE AND RELATED DEVELOPMENT

A search of committed developments (i.e., one that has received full planning permission) in the locality of the Proposed Development was undertaken using the An Bord Pleanála Online Planning search tool, the web map portal providing spatial information relevant to the planning process in Ireland (myplan.ie) and the FCC Online Planning Register. The relevant projects are set out in table 17.1 of Chapter 17 of the EIAR.

The EIAR where relevant the EIAR also takes account of other development within the area. These impacts have been addressed in the relevant chapters of the EIAR.

To determine traffic impacts in Chapter 11 the traffic generated by the proposed development is combined with the baseline traffic generated by the traffic on the road network in the area. The potential traffic impacts from other developments were also considered in the assessment (e.g. adjacent to the north).

For the noise impact assessment in Chapter 9 the potential noise emissions arising from the proposed development during construction and operation are combined (using cumulative AADT figures from Traffic chapter) with background noise levels (predominantly road traffic) were assessed.

Each of the relevant specialists has considered the potential for cumulative impact in preparing their assessments. While there is the potential for negative impacts to occur during the construction stage of the scheme, with the implementation of the appropriate mitigation outlined in the EIAR, the residual cumulative impact is not considered to be significant.

There will be some short-term impacts during the construction phase as the pipes are laid, particularly in respect of traffic management with regards to sensitive receptors. This may cause local short-term inconvenience and disturbance to residents and business in the vicinity of the works. However, the works would normally be undertaken in sections on a phased/rolling programme so that the number of persons experiencing local inconveniences at any one time is kept to a minimum.

The assessment of cumulative effects has considered a number of other developments with the Proposed Development and the likelihood of significant cumulative effects to arise from the other identified developments together with the Proposed Development.

Through the consideration of the information available (at the time of assessment), it is concluded that there is no likelihood of any significant residual cumulative effects with the three planning applications.

The assessment of combined effects has not identified any significant combined effects where the combination of effects would result in a different rating of effect to that already predicted in the individual technical assessments.

As such, with the necessary mitigation for each environmental aspect, it is anticipated that the potential cumulative impact of the proposed development in conjunction with the other permitted developments would not result, either directly or indirectly, in likely significant effects on the environment.

7.0 SUMMARY OF EIA MITIGATION AND MONITORING MEASURES

Chapter 18 of the EIAR (Volume II) provides a summary of all the mitigation and monitoring measures proposed throughout the EIAR document for ease of reference for Fingal County Council and all other interested parties.

The Contractor's CEMP will implement the measures contained in this EIAR and the CEMP (included with the application in Appendix D Volume III of this EIAR). The CEMP presents the approach and application of environmental management and mitigation for the construction phase of the proposed Project. It aims to ensure that adverse effects from the construction phase of the proposed Project, on the environment are avoided or minimised. It broadly replicates the construction stage mitigation included in Chapters 3-15 of this EIAR and as summarised in Chapter 18.

Post planning, the appointed contractor will take ownership of the Construction Environmental Management Plan (CEMP). Prior to any demolition, excavation or construction, the Construction Environmental Management Plan (CEMP) will be updated by the successful contractor. The CEMP will set out the Contractor's overall management and administration of the construction project. The CEMP will be treated as a live document and communicated to all relevant personnel on site.