Environmental Impact Assessment Report

Volume 2

Large-Scale Residential Development (LRD)

Lands at Station Road (L2228)
and Old Navan Road (R147),
Townlands: Dunboyne, Clonee,
Castle Farm and Loughsallagh,
Co. Meath

On behalf of
John Connaughton Ltd.

August 2024

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1 INTRODUCTION AND METHODOLOGY

1.1 Introduction

This Environmental Impact Assessment Report (EIAR) is submitted in conjunction with, and in addition to, a planning application, prepared by Brock McClure Consultants, 63 York Road, Dun Laoghaire, Co. Dublin for a ten-year permission for the development of Large-Scale Residential Development, on a site of approx 21.9 ha in total and 15.74 ha net developable area respectively, at lands at Station Road (L2228) and Old Navan Road (R147), Dunboyne, Co. Meath in the townlands of Dunboyne, Clonee, Castle Farm and Loughsallagh.as described below:

John Connaughton Limited intend to apply to Meath County Council for a 10-year permission for development of a Large-Scale Residential Development (LRD) to include 853no. residential units, café, 1no. medical unit, 2no. retail units, community room, 2 no. creches, a section of Eastern Distributor Road located at lands at Station Road, Dunboyne, Co. Meath, to the east and north of Dunboyne Town. Furthermore, the subject development includes works to 2no. roundabouts at Old Navan Road (R147), Dunboyne, Co. Meath.

We wish to highlight from the outset, that our client is committed to working with the Planning Authority to deliver on the LRD including a section of a distributor road proposal that is appropriate to the site and the surrounding context at Dunboyne. The subject development is proposed in line with statutory documents and reflects on local limitations to minimise impacts on the environment. The site location plan is shown on figure 1.1 below:

Figure 1.1: Site Layout Plan

The development proposal currently submitted provides for 10-year planning permission for development of a Large-Scale Residential Development on a site of approx 21.9 ha in total and 15.74 ha net developable area respectively, at Lands at Station Road (L2228) and Old Navan Road (R147), Dunboyne, Co. Meath in the townlands of Dunboyne, Clonee, Castle Farm and Loughsallagh.

The principle application site is generally bounded by Station Road (L2228) to the south, Dunboyne Train Station and the Iarnród Éireann rail line to the West, a cluster of detached houses to the south east, greenfield lands to north and east. The application includes also modifications to 2 no. roundabouts on the Old Navan Road, (R147). Development comprises: -

a) Construction of 853 no. residential units as follows:

1) 398 no. Apartment Units in 3 no. 1-6 storey blocks (A-C) consisting of 121 no. 1-bedroom apartments; 258 no. 2-bedroom apartments; and 19 no. 3-bedroom apartments. All apartment units will be provided with private open space areas in the form of balconies/terraces.
2) 112 no. Duplex Units in 6 no. 2-4 storey blocks (D-H) consisting of 60 no. 2-bedroom units, 52 no. 3-bedroom units. All duplex units will be provided with private open space areas in the form of balconies/terraces.
3) 343 no. 1-3 storey houses consisting of 4 no. 2-bedroom units, 308 no. 3-bedroom units, 31 no. 4-bedroom units. Each house will have an associated rear private garden.

b) Residential amenity spaces in Block A (approx. 212 sqm), Block B (approx. 284 sqm) and Block C (approx. 81 sqm);

c) The proposed development also includes a proposed café (approx. 196sqm) with associated outdoor seating area, medical unit 1 (197 sqm), retail unit 2 (approx. 217 sqm), retail unit 3 (approx. 170 sqm), community room (approx. 52 sqm), 2 no. creche facilities (approx. 394 sq m and approx. 400 sqm);

d) Provision of 1192 no. car parking spaces across the development site (inclusive of accessible parking spaces (27 no.) and 1,634 no. bicycle parking spaces for residents and visitors of the scheme provided throughout the development site.

e) 13 no. landscaped public open space amenity areas (approx. 23,925 sqm total);

f) 7 no. communal open spaces associated with the proposed apartments and duplexes will be provided in the form of landscaped areas located in the vicinity of these units (approx. 6,279 sqm total);

g) Section of the Dunboyne Eastern Distributor Road (approx. 865 m long) from the southern site boundary with Station Road (L2228) to the northern boundary of the site. This includes all associated vehicular and pedestrian accesses, carriageways, paths and junctions;

h) New vehicular, pedestrian and cycle connections to Dunboyne Train Station and closure of the existing vehicular access from Station Road (L2228);

i) Upgrade of Station Road (L2228) – proposed Distributor Road junction;

j) Alterations to 2no. roundabouts on the R147 (Old Navan Road):

   a. Roundabout at the junction of Station Road (L2228) and Old Navan Road (R147)
   b. Roundabout at the entrance to Clonee Village on the R147, at the Ard Cluain apartment scheme and Dunboyne Tennis Club

k) All associated site development works, services provision, infrastructural and drainage works, internal access roads, homezones and cycle and pedestrian infrastructure, provision of ESB substations, bin stores, public lighting, landscaping, and boundary treatment works.

l) Temporary areas allowing for construction: 5m buffer zone along the Distributor Road, compound and spoil storage area

Previous applications have been made or permitted on lands within the red line boundary of the subject proposal: Reg. ref. 24/60063, Reg. ref. 23849, ABP NA29S.314232

DART+ West, Reg. ref. 212395 (ABP 304842), Reg. ref. RA180561 refers. The subject application does not materially amend any of these existing, permitted, or proposed developments with only minor works proposed to same.

This planning application is accompanied by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).

It is noted that the assessment area for this Environmental Impact Assessment Report considers both permanent and temporary development.

For a full development description, we refer to Chapter 2.

1.1.1 Expertise

This chapter of EIAR has been prepared by Katarina Kanevova, a planner, who completed her Master's Degree in Spatial Planning at Slovak University of Technology in Bratislava, Slovakia in 2010. Following her studies she worked in forward planning, specialised on land-use planning projects in Slovakia. Her main focus after moving to Ireland is on residential development. Katarina is a Corporate Member of the Irish Planning Institute.

1.2 Scoping of the EIAR

The purpose of scoping is to identify the information to be contained within the EIAR and the methodology to be used in gathering and assessing the information.

The current application has been subject to formal pre planning application consultation meetings with Meath County Council consisting of a section 247 pre planning meeting and a LRD meeting in accordance with section 32B of the Planning and Development (Large Scale Residential Developments) Act 2021.

The application reflects and responds to the points of discussion during the course of the pre application consultations with Meath County Council. It has been further informed by advice received from the specialist team engaged to prepare the EIAR.

1.3 Consultation

A dedicated website for the proposed development is established and the EIAR is available at: www.stationroaddunboynelrd.ie

Prior to the lodgement of this application, the full complete Environmental Impact Assessment Report has been uploaded to the Department of Housing, Planning and Local Governments EIA Portal. The EIA portal is easily accessible by members of the public and provides a link and map of all planning applications that have been lodged with an accompanying EIAR.

1.4 Requirement for Environmental Impact Assessment

The requirement for an EIA for certain types and scales of development is listed in Annex I and Annex II of the of the EU Directive 2014/52/EU amended directive 2011/92/EU and is transposed into Section 5 (Part 1 and 2) of the *Planning and Development* Regulations 2001 as amended.

The EU Directive on EIA lists projects for which an EIA is mandatory (Annex I) and projects for which an EIA may be required (Annex II) EU member states can select to apply thresholds for Annex II projects or examine projects on a case-by-case basis to assess

when an EIA is required. In Ireland a combination of both has been applied. Annex I and II of the EU Directive on EIA have been transposed to schedule 5 of the *Planning and Development Regulations 2001* as amended.

The subject development does not fall within any of the classes of development as listed within Part 1 of Schedule 5.

The proposed development does fall within the development classes as set out in Part 2 of schedule 5 as follows:

10. Infrastructure Projects (b)(iv):

> *'Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of built-up areas and 20 hectares elsewhere'.*

The subject site area is 21.9 ha what exceeds threshold of 20 ha applicable to a development outside of a built up area. This EIAR has been prepared in accordance with Part 10 provisions of the Act.

This EIAR describes the findings of the EIA process to the Planning Authority to help determine a decision on the proposed development. It also informs the relevant statutory consultees, interested parties and the public about the likely effects that the proposed development will have on the environment.

1.5 Content of the Environmental Impact Assessment Report

This EIA report has been prepared in accordance with the most relevant guidance including but not limited to:

- EIA Directive (2011/92/EU) as amended by EIA Directive (2014/52/EU)
- Planning and Development Act 2000 (as amended)
- Planning and Development Regulations 2001 (as amended)
- Guidelines for Planning Authorities and An Bord Pleanala on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018).
- Guidance on preparation of the Environmental Impact Assessment Report (European Union, 2017)
- Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022).

Pursuant to EIA Directive, (Article (5) 1 of Directive 2014/52/EU), this EIAR specifically contains:

- A description of the project comprising information on the site, design, size and other relevant features of the project;
- A description of the likely significant effects of the project on the environment;
- A description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and if possible, offset likely significant adverse effects on the environment;
- A description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.
- A description of the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be effected or the use of natural resources;
- A non-technical summary of the information referred to in points (a) to (d); and

- Any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project.

Impacts arising from the existence of the proposed development, the use of natural resources, the emission of pollutants, the creation of nuisances and the elimination of waste are described as direct, indirect, secondary, cumulative, short and long term, permanent and temporary, positive and negative, as appropriate.

1.6 Competency

An Environmental Impact Assessment Report must be prepared by competent experts. The applicant, John Connaughton Limited, approached Brock McClure Planning and Development Consultants to direct and co-ordinate the preparation of the EIAR. A team of qualified experts has prepared each individual chapter of the report, as listed in table 1.1 below.

1.7 Format and Structure of the EIAR

This EIAR has been prepared in the 'Grouped Format' structure, which examines each aspects of the environment as a separate chapter referring to the existing environment, the proposed development, likely impacts and mitigation measures.

The EIAR is presented in 3 no. volumes as follows:

- Volume 1 – Non-Technical Summary
- Volume 2 – Environmental Impact Assessment Report
- Volume 3 – Appendices to Environmental Impact Assessment Report

Preparation of the EIAR has been co-ordinated by Brock McClure, Planning and Development Consultants with inputs from specialist consultants. Table 1.1 below provides a summary and overview of how this EIAR is structured together with an acknowledgment of specialist consultant's input in the preparation of same.

Pursuant to Schedule 6, Part 1 and Part 2 of the 2001 Regulations, the following environmental elements have been grouped and assessed within this EIAR:

CHAPTER	*ASPECT*	*CONSULTANT*	*LEAD CONSULTANT*
0	*Non-Technical Summary*	*Contribution from all EIAR project team members*	*Not Applicable*
1	*Introduction*	*Brock McClure*	*Katarina Kanevova*
2	*Description of the Proposed Development*	*Brock McClure*	*Katarina Kanevova*
3	*Planning and Development Context*	*Brock McClure*	*Katarina Kanevova*
4	*Alternatives*	*Brock McClure*	*Katarina Kanevova*
5	*Population and Human Health*	*Brock McClure*	*Katarina Kanevova*

6	*Land, Soils, Geology and Hydrogeology*	*DBFL Consulting Engineers*	*Steven Coroon*
7	*Hydrology*	*DBFL Consulting Engineers*	*Steven Coroon*
8	*Biodiversity*	*Enviroguide*	*Liam Gaffney*
9	*Air Quality and Climate*	*Enviroguide*	*Harry Parker*
10	*Noise and Vibration*	*Wave Dynamics*	*James Cousins*
11	*Landscape and Visual Impact*	*Ait Urbanism and Landscape*	*Margaret Egan*
12	*Archaeological, Architectural and Cultural Heritage*	*IAC*	*Faith Bailey*
13	*Traffic and Transportation*	*DBFL Consulting Engineers*	*Thomas Jennings*
14	*Waste Management*	*Enviroguide*	*Harry Parker*
15	*Material Assets*	*Brock McClure*	*Katarina Kanevova*
16	*Cumulative Impacts*	*Brock McClure*	*Katarina Kanevova*
17	*Interactions Interrelationship between the aspects*	*Brock McClure*	*Katarina Kanevova*

Table 1.1: Structure of Volume 1

1.8 EIAR Project Team

DBFL is one of Ireland's leading engineering consultancies with offices in Dublin, Cork, Galway, and Waterford. They combine commercial understanding with innovative engineering solutions. DBFL has been successfully making designs a reality across commercial, retail, hotels, education, residential, infrastructure, transportation, and marine sectors. We have built our reputation by providing a high level of personal service to both public and private clients in each of our three disciplines across Ireland, UK, and Europe.

Brock McClure Consultants is a town planning consultancy established in 2012 and partnered by Laura Brock and Suzanne McClure. Laura Brock and Suzanne McClure have 20 years of experience in all aspects of planning consultancy in both the public and private sector and a proven track record in the industry with a wide range of projects spanning across both statutory and strategic planning fields.

A high-calibre team of urban planners has extensive experience in a broad range of project types including residential, mixed use, industrial and commercial developments. Brock McClure Planning Consultants provides specific advice on development proposals, exempted development provisions and aspects of planning law but has also experience in all other aspects of planning (retail assessment, site characterisation assessment, monitoring, planning appraisals, environmental assessment and among many more).

Enviroguide Consulting has an established reputation for delivering high quality consultancy services including environmental compliance, environmental liability, risk management and waste management consultancy. We provide expert guidance and advice with a proven track record of successfully delivering innovative and practical solutions.

Enviroguide assists their clients to understand the environmental implications of their operations and to add value to their business with solutions that incorporate financial and environmental risk mitigation.

Their extensive project experience ranges from conceptual development and project execution through to ongoing operational support. Enviroguide consistently offer clients a reliable, hands-on, expert service with a proven track record of successfully delivering on projects.

Enviroguides team of experienced consultants and project managers includes environmental scientists, engineers, surveyors, chartered waste managers, hydrogeologists, contaminated land experts, acousticians and ecologists.

Many of Enviroguides senior consultants are leading experts and are chartered members of relevant professional organisations.

Established in 2009, Áit Urbanism + Landscape Ltd is an award winning design practice based in Dublin with live projects throughout Ireland. Our team is multi- disciplinary with expertise in Landscape Architecture, Landscape Planning, Urban Design, and LVIA, with a client base in both the private and public sectors. Áit have strong working relationships with a wide range of consultants in the construction industry , working closely with established architects, ecologists, archaeologists, civil, roads, mechanical and lighting engineers, and quantity surveyors.

We have won numerous Awards for Design and Planning; in areas such as Placemaking, Biodiversity, Linear Landscapes (Active Travel Schemes), Responsive Urban and Rural Design, Public Realm Design, Greening Strategies and many more. Through our work with local authoritiies we have extensive experience in community participation through the public consultation process which we feel is key to informing a design process with the most successful outcomes.

Established since 1998, IAC Archaeology is a multidisciplinary archaeological practice.

Since their foundation they have evolved into Ireland's most successful archaeological consultancy employing a core staff of 30 archaeologists, surveyors and project managers and a field staff of up to 350 archaeologists.

IAC offers their clients a wide range of services, which ensures that they can provide for all of their Archaeological and Built

Heritage needs. They have the technical skills and experience to allow us deliver pragmatic and flexible solutions to any archaeological situation no matter how complex and challenging. Their strength lies in their experience, which is backed-up with a proven track-record of delivering for our clients. They are fully licenced to work in both the North and South of Ireland.

IAC provides a comprehensive range of archaeological and built heritage services to the development industry. Their clients include architects, planners, developers, local authorities, semi-state bodies and government departments.

Wave Dynamics are a leading provider of acoustic consultancy services. Our team provide specialist design, engineering and consultancy for building acoustics, planning, environmental noise, industrial noise and vibration. We work across the full spectrum of projects in the built environment, industrial and environmental sectors.

We have offices in Dublin and Wexford and a presence in the UK. Our team has experience working on all types of projects in the educational, healthcare, residential, industrial, environmental, pharmaceutical and power generation sectors.

Our team have specialist experience working on high value project bundles, infrastructure and specialist projects where bespoke acoustic design solutions are required.

1.9 Description of Effects

Each EIA chapter assesses the direct, indirect, cumulative, and residual impact of the proposed development for both the construction and operational stage.

The identified quality, significance, and duration of the effects for each aspect is based on terminology set out in the EPA's Guidance on the Information to be contained in Environmental Impact Assessment Reports 2022 table 3.4, presented on table 1.2 below:

Quality of Effects	**Positive** – A change which improves the quality of the environment
	Neutral - No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error
	Negative – A change which reduces the quality of the environment
	Imperceptible – An effect capable of measurement but without significant consequences.
	Not Significant – An effect which causes notable changes in the character of the environment but without significant consequences
	Slight Effects – An effect which causes notable changes in the character of the

Describing the Significance of Effects	environment but without significant consequences
	Moderate Effects – An effect that alters the character of the environment without affecting its sensitivities
	Significant Effects – An effect which, by character, magnitude, duration, or intensity, significantly alters most of a sensitive aspect of the environment
	Profound Effects – An effect which obliterates sensitive characteristics
Describing the Extent and Context of Effects	**Extent** – Describe the size of the area, the number of sites and the proportion of a population affected by an effect
	Context – Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Describing the Probability of Effects	**Likely Effects** – The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented
	Unlikely Effects – The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented
Describing the Duration and Frequency of Effects	**Momentary Effects** – Effects lasting from seconds to minutes
	Brief Effects – Effects lasting less than a day
	Temporary Effects – Effects lasting less than a year
	Short Term Effects – Effects lasting one to seven years
	Medium Term Effects – Effects lasting from 7 to 15 years
	Long Term Effects – Effects lasting from 15 to 60 years

	Reversible Effects – Effects that can be undone, for example through remediation or restoration
	Frequency of Effects – Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly, - or hourly, daily, weekly, monthly, annually).
Describing the Types of Effects	**Indirect Effects (a.k.a Secondary or Off-Site Effects) –** Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway
	Cumulative Effects – The addition of many minor or insignificant effects on other projects, to create larger, more significant effects
	'Do Nothing Effects' – The environment as it would be in the future should the subject project not be carried out
	'Worst Case' Effects – The effects arising from a project in the case where mitigation measures substantially fail
	Indeterminable Effects – When the full consequences of a change in the environment cannot be described
	Irreversible Effects – When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost
	Residual Effects – The degree of environmental change that will occur after the proposed mitigation measures have taken effect
	Synergistic Effects – Where the resultant effect is greater significance than the sum of its constituents (e.g combination of SOx and NOx to produce smog).

Table 1.2 – Description of Effects

1.10 Site Selection and Consideration of Alternatives

The subject site was chosen for development based on its current zoning objectives and plan led strategic context. The overall Station Road and Pace line lands on which the subject site and overall assessment area are located are zoned for residential

development, and an indicative route through the site for a distributor road is shown within the Meath County Development Plan 2021-2027.

The subject site is within the area included in the Dunboyne, Clonee and Pace Settlement Plan 2021-2027, an integral part of the Meath County Development Plan 2021-2027.

It is accordance with planning policy, to support developments with high density of residential units in proximity of high-capacity public transport nodes. The subject site adjacent to Dunboyne Station is seen as a highly suitable for the proposed development with density of 53.6 uph and is fully compliant with national planning policy and the development plan.

The proposed Eastern Distributor Road section forms a part of Dunboyne bypass which aims to reduce traffic through Dunboyne town centre including allowance for a HGV ban. Given the location of indicative road route in the Development Plan and the overall strategy for the delivery of key road infrastructure in Dunboyne, the subject site was chosen by the applicant to deliver the distributor road. No other sites were considered by the applicant due to the appropriateness of the subject lands for development of this typology.

The design and layout of the proposed development has undergone several iterations to ensure that the proposal is fully site responsive, and all environmental factors, including archaeology, cultural heritage, and ecology, have been considered.

Several initial site layouts were considered and assessed with regard to environmental effects prior to the finalisation of the site layout plan and design of the proposed development by the design team. Chapter 4 of this report examines earlier iterations of the overall development on the Station Road and Pace Line lands, Dunboyne, Co. Meath and provides analysis of the design evolution as it relates to each individual EIAR topic.

A 'do-nothing' scenario was considered an inappropriate and unsustainable approach that would result in the inefficient use of a strategically located land bank of zoned residential lands including a distributor road corridor. A 'do nothing' scenario would also frustrate the delivery of the strategic planning objectives for the area and the region.

1.11 Forecasting Methods and Difficulties in Compiling the Specified Information

Forecasting methods and evidence used to identify and assess the significant effects of the environment for each environmental aspect are set out in each chapter.

There were no significant difficulties encountered in compiling the specified information in this EIAR. Any issues that were encountered during the assessment of individual factors are noted within the relevant chapters.

2 DESCRIPTION OF THE SITE AND PROPOSED DEVELOPMENT

2.1 Introduction

This chapter provides a description of the subject site, receiving environment and a description of the proposed development.

A systematic approach in accordance with the Guidelines on the Information to be contained in EIARs (2022), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018) and other EIA Guidance documents were used to ensure that all relevant aspects of the development are accurately and fully described. The objective is to provide a description of the proposed development in sufficient detail, which when taken together with the description of the receiving environment provided, will allow an independent reader without acquired technical environmental knowledge, to understand the significant impacts likely to arise from the proposed development.

The description of the proposed development is described in this chapter in terms of these environmental topics that will form the basis of the impact assessment process and the characteristics of the proposed development which could potentially affect human beings, soil, water, climate, air, flora, fauna, landscape, archaeology, and cultural heritage. Chapter 17 specifically addresses interactions between all environmental factors in this regard.

The EIA directive also requires that the description of the site, design, size or scale of the development considers all relevant phases of the existence of the project from its construction through its existence and operation (and where applicable its restoration or decommissioning).

This EIAR document fully reflects the key environmental factors of the proposed development which were recognised from the scoping carried out by the design team. The level of detail required will vary considerably according to the sensitivity of the existing environment and the potential of the project for significant effects.

2.1.1 Expertise

This chapter of EIAR has been prepared by Katarina Kanevova, planner, who completed her Master's Degree in Spatial Planning at Slovak University of Technology in Bratislava, Slovakia in 2010. Following her studies she worked in forward planning, specialised on land-use planning projects in Slovakia. Her main focus after moving to Ireland is on residential development. Katarina is a Corporate Member of the Irish Planning Institute.

2.2 Subject Site Characteristics

The subject site is located on the eastern outskirt of Dunboyne to the east from a railway line.

The subject development site extends to approximately 21.9 ha (gross site area). The net developable area of c.15.74 ha excludes: the distributor road including temporary areas needed for a construction phase, engineering connections outside main development area, 10m wide Irish Rail exclusion zone, 2no. roundabouts on R147, existing wayleave along the western boundary.

The site consists of 2 separate areas: the main part of the site proposed for residential development including a section of the Eastern Distributor Road and 2no. roundabouts located on R147.

The future residential development with ancillary 2 no. retail units, medical unit, café, community room and 2no. creches is located to the north of Station Road (L2228) and to the east from a railway line on the north east outskirt of Dunboyne and is identified in Figure 2.1 below for the purposes of this report. The subject area is located dominantly in Townland Dunboyne with a small southern section of the Station Road junction in Townland Castle Farm. Furthermore, 2 no. roundabouts at Old Navan Road (R147) proposed for alterations are located in Townlands Clonee and Loughsallagh.

The majority of the site is greenfield in nature relatively flat, and in agricultural use. A residential property known as Mill Farm Cottage in the southwest corner of the subject site has been demolished recently. An access road to the Dunboyne Train Station is located at the southern end of the site. There are a number of trees and hedgerows in the northern portion of the site. The wider area is generally comprised of suburban residential developments, Dunboyne Train Station and agricultural/greenfield space.

The lands are bound by the Iarnród Éireann railway line which services the Western Commuter (Dublin to Sligo) Railway service and Dunboyne train station to the west. Station Road runs along the southern boundary of the site. Loughsallagh (residential area) is adjacent to the subject site to the south east and agricultural land to the east and north. The site is c 1 km from the town centre and directly adjacent to Dunboyne train station.

The site is a natural extension of Dunboyne Town and is close to a range of public transport and employment nodes in the locality. Dunboyne is well serviced by a range of retail and commercial services, as well as a number of educational and community facilities (schools, library, community centre, etc) within easy reach of the site. For more details on social infrastructure we refer to Social Infrastructure Statement which forms a part of this submission. A Social Community Statementt forms a part of the planning application.

2no. roundabouts are located at R147 (Old Navan Road): roundabout at the junction of Station Road (L2228) and Old Navan Road (R147) in Townland Loughsallagh and roundabout at the entrance to Clonee Village on the R147, at the Ard Cluain apartment scheme and Dunboyne Tennis Club in Townland Clonee.

Figure 2.1 – Application Site Location (outlined in red)

Aside from availing of the many amenities that Dunboyne to the southwest of the subject lands has to offer, the development site is proximate to enterprise and employment sites with potential for rapid growth on the east of M3.

The subject site is located c.8 kilometres north-west of Blanchardstown, c.15 kilometres north-west of Dublin City Centre and c.18 kilometres west of Dublin Airport.

Public Transport

Bus

There are a number of bus services available on Station Road with the nearest bus stop located on the southern boundary of the site. The following services are available:

Operator	Number	Route	Frequency
Dublin Bus	70 and 70D	Dunboyne - Dublin City Centre	30 min in peak time
Bus Éireann	105	Drogheda - Blanchardstown, via Dunboyne	30 min in peak time
Go-Ahead Ireland	270	Dunboyne - Blanchardstown	60 min in peak time

Table 2.1 – Bus Services

BusConnects

BusConnects is an initiative which in the long-term proposes to implement a redesign of the existing bus network in the Dublin Region.

The areas around the proposed distributor road will be directly serviced by the following BusConnects proposed routes with bus stops on Station Road and in the Town Centre:

- Local Route No. L64: Will travel from Dunboyne to Blanchardstown, via Littlepace Road. This route will have a frequency of every 15-20 minutes.
- Peak-Only Route No. P64: Will travel from Dunboyne to Dublin City Centre. The route will have 2 inbound trips in the morning, and 2 outbound trips in the afternoon.

Rail

Southern part of the site is in immediate proximity of Dunboyne Rail Station which avails of Park and Ride and covered bike parking facilities.

The rail station is on a line operating Western Commuter Train connecting Dunboyne (Parkway Rail Station and Dunboyne Train Station) with Dublin. Following services are available:

Rail Route	**No. of Services per a Working Day (1 direction)**
M3 Parkway – Dunboyne – Clonsilla – Broombridge – Docklands / Connolly (Dublin)	15
M3 Parkway – Dunboyne – Clonsilla	10

Table 2.2 – Rail Services

Dart+ West

Dunboyne Station and the commuter railway line are included in DART+ West project.

Iarnrod Eireann/Irish Rail have submitted their planning application for the upgrading of the commuter rail line serving Dunboyne to a DART service. This provides for the electrification of the line and an increase of capacity. Railway Order was made on 18/07/2024.

The DART+ West Railway Order has authorised CIÉ to carry out railway works, and all works necessary to enable construction, maintenance, improvement, and operation of the railway along an approximate 40km section of the existing railway line between Dublin City Centre and M3 Parkway Station.

The DART+ West rail improvement project will provide a sustainable, electrified, reliable and more frequent rail service, improving capacity on Maynooth and M3 Parkway to city centre rail corridors. This will be achieved by changing from diesel powered trains to electrified, high-capacity DART trains and increasing the frequency of trains from 6 to 12 trains per hour per direction. Passenger capacity will increase from 5,000 in 2019 to 13,200 in 2025 passengers per hour per direction.

2.2 Description of the Characteristics of the Proposed Development

John Connaughton Limited intend to apply to Meath County Council for a 10-year permission for development of a Large-Scale Residential Development (LRD) to include 853no. residential units, café, 1no. medical unit, 21no. retail units, community room, 2 no. creches, a section of Eastern Distributor Road located at lands at Station Road, Dunboyne, Co. Meath, to the east of Dunboyne Town. Furthermore, works to 2 no. roundabouts at Old Navan Road (R147), Dunboyne, Co. Meath form a part of this application.

We wish to highlight from the outset, that our client is committed to working with the Planning Authority to deliver on LRD proposal that is appropriate to the site.

An overview layout drawing of the proposed Large-Scale Residential Development is shown on figure 2.2 below:

Figure 2.2 – Site Layout Plan

The development proposal currently submitted provides for 10-year planning permission for development of a Large-Scale Residential Development on a site of approx 21.9 ha in total and 15.74 ha net developable area respectively, at Lands at Station Road (L2228) and Old Navan Road (R147), Dunboyne, Co. Meath in the townlands of Dunboyne, Clonee, Castle Farm and Loughsallagh.

The principle application site is generally bounded by Station Road (L2228) to the south, Dunboyne Train Station and the Iarnród Éireann rail line to the West, a cluster of detached houses to the south east, greenfield lands to north and east. The application includes also modifications to 2 no. roundabouts on the Old Navan Road, (R147). Development comprises: -

a) Construction of 853 no. residential units as follows:

   1) 398 no. Apartment Units in 3 no. 1-6 storey blocks (A-C) consisting of 121 no. 1-bedroom apartments; 258 no. 2-bedroom apartments; and 19 no. 3-bedroom apartments. All apartment units will be provided with private open space areas in the form of balconies/terraces.
   2) 112 no. Duplex Units in 6 no. 2-4 storey blocks (D-H) consisting of 60 no. 2-bedroom units, 52 no. 3-bedroom units. All duplex units will be provided with private open space areas in the form of balconies/terraces.
   3) 343 no. 1-3 storey houses consisting of 4 no. 2-bedroom units, 308 no. 3-bedroom units, 31 no. 4-bedroom units. Each house will have an associated rear private garden.

b) Residential amenity spaces in Block A (approx. 212 sqm), Block B (approx. 284 sqm) and Block C (approx. 81 sqm);

c) The proposed development also includes a proposed café (approx. 196sqm) with associated outdoor seating area, medical unit 1 (197 sqm), retail unit 2 (approx. 217 sqm), retail unit 3 (approx. 170 sqm), community room (approx. 52 sqm), 2 no. creche facilities (approx. 394 sq m and approx. 400 sqm);

d) Provision of 1192 no. car parking spaces across the development site (inclusive of accessible parking spaces (27 no.) and 1,634 no. bicycle parking spaces for residents and visitors of the scheme provided throughout the development site.

e) 13 no. landscaped public open space amenity areas (approx. 23,925 sqm total);

f) 7 no. communal open spaces associated with the proposed apartments and duplexes will be provided in the form of landscaped areas located in the vicinity of these units (approx. 6,279 sqm total);

g) Section of the Dunboyne Eastern Distributor Road (approx. 865 m long) from the southern site boundary with Station Road (L2228) to the northern boundary of the site. This includes all associated vehicular and pedestrian accesses, carriageways, paths and junctions;

h) New vehicular, pedestrian and cycle connections to Dunboyne Train Station and closure of the existing vehicular access from Station Road (L2228);

i) Upgrade of Station Road (L2228) – proposed Distributor Road junction;

j) Alterations to 2no. roundabouts on the R147 (Old Navan Road):

a. Roundabout at the junction of Station Road (L2228) and Old Navan Road (R147)
b. Roundabout at the entrance to Clonee Village on the R147, at the Ard Cluain apartment scheme and Dunboyne Tennis Club

k) All associated site development works, services provision, infrastructural and drainage works, internal access roads, homezones and cycle and pedestrian infrastructure, provision of ESB substations, bin stores, public lighting, landscaping, and boundary treatment works.

l) Temporary areas allowing for construction: 5m buffer zone along the Distributor Road, compound and spoil storage area

Previous applications have been made or permitted on lands within the red line boundary of the subject proposal: Reg. ref. 24/60063, Reg. ref. 23849, ABP NA29S.314232 DART+ West, Reg. ref. 212395 (ABP 304842), Reg. ref. RA180561 refers. The subject application does not materially amend any of these existing, permitted, or proposed developments with only minor works proposed to same.

This planning application is accompanied by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).

2.2.1 Detailed Description

The key development parameters associated with the scheme are set out below:

Residential Mix

The development plan states that in cases of a 15 unit or more development, a mix of housing types and sizes should be provided. This will require a variety in design and size within a unified concept. The proposed development exhibits a variety of house types, apartments and duplexes which are proposed across distinct character areas:

- 398 no. Houses
- 112 no. Duplex
- 343 no. Apartments

Overall Total No. of units - 853

The following residential mix is proposed:

Houses	Apartments and Duplexes
4 No. 2-Bed Units - 1%	121 No. 1 Bed Units - 24%
308 No. 3-Bed - 90%	318 No. 2 Bed Units - 62%
31 No. 4-Bed - 9%	71 No. 3 Bed Units - 14%

Table 2.3 – Unit Mix

Houses are proposed as semi-detached and terraced.

Overall Accommodation % Splits

- 1-bed 14% (apartments)
- 2-bed 38% (duplex, apartments & houses)
- 3-bed 44% (duplex, apartments & houses)
- 4-bed 4% (houses)

For compliance with requirements of the Meath County Development Plan 2021-2027 and relevant SPPR of Sustainable Urban Housing: Design Standards for New Apartments Guidelines (2023) we refer to Section 8.1.8 Housing Mix of this Planning Report prepared by BMC.

Residential Amenity Facilities

Internal Residential Amenity areas are proposed in residential Blocks A-C as follows:

	Area	Location	Specification
Block A	212 sqm	Ground Floor +1st Floor	concierge, gym
Block B	284 sqm	Ground Floor	concierge, multi-purpose communal space
Block C	81 sqm	Ground Floor	concierge

Table 2.4 – Residential Amenity Facilities

These facilities will generally support the residential element of the apartment blocks. It is intended that these areas will be accessible via reception on the ground floor adjacent to public realm. This offering is intended to promote a sense of community and relaxation, encouraging tenants to socialise, work or unwind in a comfortable environment.

Other Uses

The Gateway Hub is located to the south of the subject site adjacent to Station Road and Dunboyne Station. Along with the apartment development it provides for non-residential uses on the ground floor of Block A to create an active urban frontage addressing Station Road and a new station car park access. The proposed non-residential uses include:

- cafe (196 sqm) and associated outdoor seating area
- medical unit 1 (c. 197sqm)
- retail unit 2 (c. 217 sqm)
- retail unit 3 (c. 170 sqm)
- community room (52 sqm)

Furthermore, 2 no. childcare facilities are provided:

- Stand-alone creche in the Gateway Hub (c. 394 sqm)
- Creche adjacent to Block C (c. 400 sqm)

For further details on childcare need assessment and calculations we refer to the Social Infrastructure Statement and Chapter 3 of the EIAR.

The extent of non-residential floor spaces is considered appropriate within the context of the sites proximity to services offered in Dunboyne. It is submitted that non-residential use forms less than 30% of the overall gross floor area.

Density

The density proposed is based on 853 units on a main developable net[1] site are of 15.74 ha which provides a residential density of **55.3 units per hectare** and is considered appropriate for a 'Metropolitan Town – Centre and Urban Neighbourhood' given the proximity of the site to public transport such as the proposed DART+ and the local buses. A density of this nature is supported by national policy which is aiming to deliver increased height and densities at appropriate locations and recent ministerial guidance offered by way of the ***Sustainable Residential Development and Compact Settlement Guidelines (2024)***

A concentration of apartments is proposed in the Gateway Hub at the entrance to the development at the Station Road end of the scheme which is closest to the station with density of **116.5 uph**. The density reduces towards the centre of the scheme where the dwellings proposed are primarily houses appropriate in their relationship to the lower scale existing housing immediately across the railway line to the west. An increase in both scale and density is then proposed along the distributor road and at the northern end of the site proximate to both the future bridge across the railway and some existing power lines. These three zones will therefore be identifiably different in terms of typology grouping, density, scale, aesthetics and landscaping.

Building Height

Heights of 1-6 storeys are proposed in this case. We are of the opinion that this form of development is appropriate to the site and surrounding context and will not have an overbearing impact on surrounding development.

The scheme responds to its context through the provision of a gradual increase in height from the established prevailing contextual height in the area with a transition to increased heights up to 6 storeys (Blocks A - C) in focal points on bookends of the site. Increased heights along the proposed distributor road create a strong urban frontage. This stepped approach creates variety and visual interest but most importantly delivers on an appropriate design and prominence key locations across the site.

A concentration of apartments in the Gateway Hub with increased height predominantly six storeys in height (Maximum height 21.300m at Block A) at the Station Road frontage is proposed to provide a landmark, gateway building into both the site and Dunboyne Village.

Non-residential units are also proposed at ground level within these apartment buildings which will create community engagement and interaction with the public realm at this location.

A sample of the building heights proposed in the apartment blocks is shown below.

[1] As defined by Appendix B of the *Sustainable Residential Development and Compact Settlement Guidelines (2024)*

Figure 2.3 – Block A and B - South Facing Elevation towards Station Road

Further to the north height and unit typology varies from 2-4 storey duplexes to 2-3 storey houses providing a strong frontage along the distributor road and to the zoned open space to the east. The central part of the subject site is characterised by traditional housing in the form of 1-2 storey semi-detached and terraced houses that respond to surrounding built context. To the north of the site, proposed height increases from 2 storey houses through 2-4 storey duplexes to a 1-6 storey apartment block C to address height of a future bridge across railway.

The apartment blocks on both ends of the site create appropriate enclosure and enhance urban form of the development.

We refer to Drawing PL500-502 Context Elevations Along Distributor Road prepared by MCORM which provides elevations along the whole length of the distributor road and shows the enhanced urban frontage.

The 6 storey element of the development is at the entrance to the site and fronts onto Station Road where the building will emphasise the entrance to the site, the Dunboyne Railway Station and to Dunboyne Village. We note from section 3.1 of the 'Urban Development and Building Heights, guidelines for Planning Authorities (December 2018)' that:

> *"There is therefore a presumption in favour of buildings of increased height in our town/city cores and in other urban locations with good public transport accessibility."*

The northern portion of the site features up to 6 storey building heights.

Notwithstanding the above, the subject proposal is in accordance with the height guidelines outlined in the Meath County Development Plan. The increased height to 6 storeys is a gradual increase within the site, with 1 - 4 storey buildings also proposed, allowing the development to appropriately assimilate with the surrounding area.

For compliance with requirements of the Meath County Development Plan 2021-2027 and relevant SPPR of Sustainable Urban Housing: Design Standards for New Apartments Guidelines (2023) we refer to Section 5.1.6 of the Planning Report and for compliance with Urban Development and Building Heights, guidelines for Planning Authorities (December 2018), we refer to Chapter 3 of the EIAR.

Public Open Space & Landscaping Proposals

The proposal consists of a number of open spaces throughout the development in the form of communal open spaces; pocket parks – which will function as pollinator hubs, and opportunities for ecological enhancement/expansion; and small parks which will provide seating, play spaces and multi-use sports facilities. All will offer a significant gain to the local public realm and contribute to residential amenity.

Open Space areas are proposed as follows:

- Public Open Space 1 – 956 sqm
- Public Open Space 2 – 542 sqm
- Public Open Space 3 – 943 sqm

- Public Open Space 4 – 6,958 sqm
- Public Open Space 5 – 593 sqm
- Public Open Space 6 – 624 sqm
- Public Open Space 7 – 336 sqm
- Public Open Space 8 – 6,608 sqm
- Public Open Space 9 – 1,312 sqm
- Public Open Space 10 – 740 sqm
- Public Open Space 11 – 971 sqm
- Public Open Space 12 – 1,333 sqm
- Public Open Space 13 – 2,009 sqm

Total: 23,925 sqm or 2.39ha (15.2%)

Each area of open space has been thoughtfully designed to provide for a high-quality landscaped environment for perspective users of all age groups. The requirement for public open space in a residential development is a minimum of 15% of the total site area. The developable area of the subject site is 15.74 hectares when the area of the distributor road and areas zoned as open space are removed. The public open space provided amounts to 23,925 sqm just which equates to 15.2% of the total site.

The scheme's landscape architects have submitted herein a concept plan for the site, which details the larger public open space areas, pocket parks; hard and soft landscaping proposals; and the existing trees and hedgerows to be retained where possible.

For compliance with requirements of both the Meath County Development Plan 2021-2027 and the Sustainable Urban Housing: Design Standards for New Apartments Guidelines (2023) with respect to Open Space provision we refer to Chapter 3 of the EIAR.

Landscape Strategy

The character of the landscape proposed is one of large trees, corpses of native trees, formal clipped hedges, ornamental shrub and groundcover planting, woodland planting and native hedgerows. The landscape strategy aims to integrate the proposed residential development with the existing landscape and create a network of attractive and useable open spaces while contributing to local biodiversity. The public green areas are designed as landscape spaces that offer the opportunity for meeting, walking and formal and informal play.

Figure 2.4 – Illustrative pictures from landscape proposal

Communal Open Space

The requirement for communal open space is defined by the Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2023), as shown in the table below.

Based on the requirement the following areas of communal open space are proposed:

	1-bed	2-bed	3-bed	Required	Provided
Block A	48	83	11	920 sqm	1500 sqm
Block B	46	91	5	912 sqm	1250 sqm
Block C	27	84	3	750 sqm	2200 sqm
Block D		14	14	224 sqm	245 sqm
Block E1-E2		20	16	284 sqm	334 sqm
Block F&G		16	12	220 sqm	250 sqm
Block H1-H5		10	10	160 sqm	500 sqm
Total				3470 sqm	**6279 sqm**

Table 2.5 - Proposed Communal Open Space

Each area of open space has been thoughtfully designed to provide for an accessible, secure, and usable outdoor space for all residents including families with young children and less mobile older people.

Figure 2.4 – CGI of communal open space

For compliance with requirements of both, the Meath County Development Plan 2021-2027, and the Sustainable Urban Housing: Design Standards for New Apartments Guidelines (2023) we refer to Chapter 3 of the EIAR.

Small secluded seating areas are accommodated for and also spaces to cater for larger groups for communal uses. There will be planted buffers for the outdoor terraces, the facades and windows of all apartment blocks, ensuring that residents have a certain amount of privacy within their own apartments and views are blocked from the more public areas into the private spaces. Pergolas will be provided in each courtyard, as areas for sitting/eating and also to provide some sun shelter when needed.

Car parking

The subject site is considered to be an accessible urban location due to its proximity within 10 minutes walking distance of commuter rail/ proposed Dart+.

Overall Car Parking Provision: **1192 no. spaces**

Houses

- Provided 682 no. in-curtilage parking for houses (1 space for 2-Beds & 2 spaces for 3-Bed+)

Apartments/ Duplexes

- Provided 488 no. parking spaces for 510 no. units.

	No. units	No. Car Parking Spaces Provided				Ratio
		total	visitors	residents	accessible*	
Block A	142	102	26	76	7	0.7
Block B	142	96	7	89	5	0.7
Block C	114	146	30	116	8	1.3
Block D	28	36	8	28	2	1.3
Block E	36	47	11	36	2	1.3
Block F&G	28	36	8	28	2	1.3
Block H	20	25	5	20	0	1.3
Total	**510**	**488**	**95**	**393**	**26**	**0.96**

*Included in total number of spaces provided per block

Table 2.6 - Proposed Car Parking Spaces for Apartments/Duplexes

In addition to parking spaces for residential uses, car parking spaces were allocated as follows:

- Commercial units: 22no. parking spaces (including 1no. accessible)
- Creche - Block C: 4no pickup / drop off spaces + 11no. staff / duplex visitor spaces (dual allocation) (including 1no. accessible)

- Creche - stand-alone: 5no pickup / drop off spaces + 11no. Creche staff / visitor spaces (dual allocation) (including 1no. accessible)

20% of overall provision of parking requires wiring & ducting for future EV charging points. Additionally, a total of 8 no. fully functioning EV chargers will be provided in the car park serving the retail units and creche.

12no. Motorcycle spaces provided within under croft of Apartment Block A, B & C in total

5% of accessible parking spaces for apartments and duplexes – 27 no. accessible parking spaces provided in overall for the development.

For compliance with requirements of the Meath County Development Plan 2021-2027 we refer to Chapter 3 of the EIAR.

Bicycle Parking

Bicycle parking for apartment and duplexes is provided at ratio 1 space per bedroom + 1 visitor space per 2 units.

	No. units	No. Bicycle Parking Spaces Provided		
		total	Long Stay	Short Stay
Block A	142	320	248	72
Block B	142	316	244	72
Block C	114	264	204	60
Block D	28	86	72	14
Block E	36	108	88	20
Block F&G	28	82	68	14
Block H	20	60	50	10
Total	**510**	**1236**	**974**	**262**

Table 2.7 - Proposed Bicycle Parking Spaces for Apartments/Duplexes

Mid-terrace houses – 650 no. spaces (2 no. long stay spaces per unit plus 4 no. short stay spaces per cell)

Bicycle parking for non-residential uses:

Block A – non-residential uses – 12 no. spaces (1 space for every 10 car spaces)

Stand-alone creche – 12 no. spaces (25% pupil registration, minimum 10 spaces and quantum for staff / teachers)

Block C – creche - 12 no. spaces (25% pupil registration, minimum 10 spaces and quantum for staff / teachers)

Additional 6 no. cargo bicycle parking spaces and 6 no. electric bicycle parking are provided – 2 no. spaces of each located undercroft of each of Blocks A-C.

Overall Bicycle Parking Provision – **1634 no. spaces**

Access and Active Travel

The subject site will have an access via proposed distributor road from Station Road to the south and through a future bridge over a railway to the north. The bridge is not a subject to this application.

The southern part of the site is located within walking distance to trains station, local services, facilities and amenities and town centre.

Station Road incorporates dedicated footpaths on both sides of the road for the majority of its length, bar a stretch to (i) the east of the proposed subject residential development lands and (ii) over the existing rail bridge. Currently there is street lighting along one side of the road corridor. A shared footpath / cycle track is provided over the rail corridor by means of an adjoining active travel bridge positioned parallel to the historical road bridge along with a short, newly built stretch of cycle track on Station Road, adjacent to the Castle Farm housing development.

The overall proposal delivers a network or pedestrian and cycle paths connected to an existing infrastructure to support active travel.

Extra attention was paid to identified key desire lines:

- Dunboyne Station – Distributor Road
- Dunboyne Station – LMETB lands
- Dunboyne Station – proposed residential development
- Distributor Road – proposed residential development

Figure 2.5 –CGI of a new station car park access

Furthermore, In April 2024, Meath County Council published a proposed new active travel network for Dunboyne as part of the public consultation on the Dunboyne and Clonee Pedestrian and Cycle Network. The network will include a new primary route along

Station Road and a pedestrian bridge over the railway line, creating new permeability opportunities for the proposed development.

Details on the pedestrian bridge are not available at the moment, however the proposed site layout has considered this study and can accommodate the bridge in the indicated location. Proposed pedestrian links connecting the station and the future bridge can be facilitated across the development in a slightly modified route due to a location of an ESB substation proposed within the DART+ West project.

For visuals along the key desire lines please, refer to the submitted architectural and urban design statement, architect's contiguous elevations (drawings PL500-PL505) prepared by MCORM and both Photomontages and CGIs, prepared by Digital Dimensions (some of them are provided overleaf).

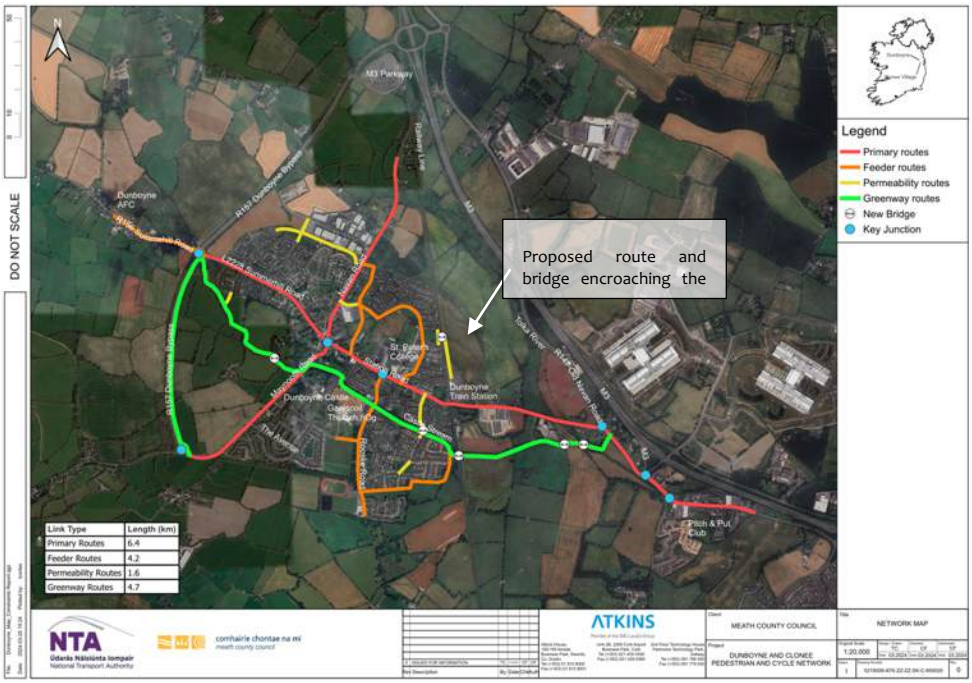


Figure 2.6 – Dunboyne and Clonee Pedestrian and Cycle Network prepared by ATKINS

It is submitted that the proposed development has a well designed network of pedestrian/ cycling paths to ensure safe movement of more vulnerable road users across the site.

Part V

We confirm that the applicant is committed to the delivery of their Part V obligations by providing 171 no. units (20%) as follows:

- 17 no. Houses
- 40 no. Duplexes
- 114 no. Apartments

Overall accommodation split:

- 27 no. 1-bed (16%)
- 118 no. 2-bed (69%)
- 26 no. 3-bed (15%)

For more detail we refer to PL115 Overall Site Layout - Part V prepared by MCORM.

Agreement was reached with the Housing Department of Meath County Council and a letter to that effect is now enclosed herewith. Costing and further details as required will be provided prior to commencement.

Figure 2.7 – Part V units allocation prepared by MCORM

Surrounding Properties and Residential Amenity

Particular consideration has been given to the immediately adjacent residential development to the south and south east as well as to the mature residential development on the western side of railway. Building mass, heights and separation distances have all been refined to ensure that there are no instances of overlooking/overshadowing of the neighbouring developments. Particular attention was

paid to the most sensitive adjoining A1 existing residential zoned lands to the east at Station Road

Furthermore, an impact on neighbouring properties has been accessed in the Daylight & Sunlight Assessment prepared by Digital Dimensions.

Daylight and Sunlight

We refer the Planning Authority to the enclosed Daylight & Sunlight Assessments prepared by Digital Dimensions. The report concludes with the following key points:

1. Daylight to neighbouring properties

The only potentially impacted buildings are those adjoining the site to the east on Station Road. Eircode A86 KD22: There is a reduction in the VSC levels to 3 windows. Based on the assumed use the window to ID 1 is a bedroom and has a lower requirement for daylight. While the VSC level is reduced to 50.8% of the existing level the window still retains a VSC level in excess of 17%. The assessment of the VSC level gives an indication of the visible sky at a point in the centre of the window and does not account for window size or room layout. The BRE guidelines states that; "The amount of light a room needs depends on what it is being used for. But roughly speaking, if θ is:" in relation to VSC level that is; "Between 15% and 27%, then special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight;". The window ID 1 to the room is large and circa 2m x 1.2m and the guidelines indicates that there should be adequate daylight available for whatever the room use.

There is a reduction in available daylight to window ID 2 and 3. These windows are to a bathroom and circulation space.. The BRE guidelines states that windows to bathrooms and ancillary accommodation do not have a specific requirement for daylight and need not be assessed. They are included for completeness.

Ivy Cottage: There is a reduction to the VSC level of the windows in Ivy Cottage facing the proposed development. The existing VSC level is below the recommended 27% currently at 26% with a reduction to 24% with the proposed development in place. The window retains a VSC level in excess of 92.9% and is not reduced below 80% of it's existing value. This meets the recommendations of the BRE guidelines.

Castlefarm Apartments: All windows retain a VSC in excess of 27% or are not reduced below 80% of the existing VSC value and any potential loss of daylight light will be minimal. Any reduction in available daylight from the proposed development will be negligible and meet the recommendations of the BRE guidelines BR209:2022 (third edition).

2. Sunlight to neighbouring properties

The windows to the living rooms in the adjacent house that face within 90° of due south were assessed for APSH. All windows assessed exceed the target values set out for annual and winter probable sunlight hours. The proposed development meets the recommendations of the BRE guidelines (2022). Any potential loss of sunlight will be negligible.

3. Amenity space to neighbouring properties

All public and private amenity spaces to the surrounding properties were assessed for sunlight in accordance with the recommendations set out in the BRE guidelines BR209:2022 (third edition). All the amenity spaces will retain 2 hours sunlight over

50% of the area or will not be reduced below 80% of the existing levels on the 21st March. The proposed development meets the recommendations of the BRE guidelines.

4. Daylight within the proposed development

BR209:2022 recommends assessment methods set out in BS EN 17037 for daylight provision. 100% of the Living, Dining, Kitchen and Bedroom spaces achieve the target values set out in BS EN 17037:2018+A1:2021 section NA1. The is the minimum rooms specific values to be achieved in habitable rooms.

IS / BS EN 17037:2018: The results indicate a high level of daylight provision. 98.3% of rooms achieve Minimum Illuminance and 83.0% achieve Target Illuminance. The rooms will be bright and pleasant spaces.

5. Sunlight within the proposed development

This scheme is well designed for sunlight, with 84.1% of the apartment and duplex units meeting the minimum recommended 1.5 direct sunlight hours. This is in line with the BRE guideline example for an apartment layout where 4 in 5 achieves the target sunlight hours.

6. Sunlight to amenity space within the proposed development

All Public Open Spaces are well oriented for sunlight and they all achieve 2 hours sunlight on the 21st March over in excess of 50% of the area. All of the Communal Open Spaces (COS) achieve 2 hours sunlight on the 21st March over in excess of 50% of the area. The majority of the Communal and Public open spaces exceed the minimum required areas.

The BRE guidelines do not give values for the number or ratio of amenity spaces that should meet the recommended targets for sunlight. In large developments there are many factors and design constraints that influence the layout of the buildings and often it is not possible for all private amenity spaces to achieve the recommended values for sunlight. The proposed development has been well designed or sunlight. Of the 343 houses, 262 no. (76.4%) achieve the target sunlight hours to their private amenity.

Evidently, the scheme performs well on these parameters which in turn supports the height, scale and massing of the development as currently proposed.

Refuse Storage

A bin storage room for residential units is located on ground floor of each of Block A, B And C. Duplex blocks are provided with bin sheds conveniently located in proximity to their entrance as detailed on drawings PL375-377 prepared by MCORM.

A separate refuse storage for non-residential units is proposed on ground floor of Block A.

Mid-terrace units have a bin storage provided in the front of units.

Distributor Road

A planning application for a Distributor Road connecting Station Road with Navan Road including a bridge over the railway line (reg. ref. 2460063) has been lodged with Meath County Council, as a joint venture partnership between the applicant herein, John Connaughton Ltd . and Carroll Estates Dunboyne Ltd.

The road consists of 2 single carriageway lanes. Generous path and cycle track widths are to be provided to encourage and maximise sustainable transport. Pedestrian paths and cycle tracks are proposed on both sides of the road from which they are segregated and separated by a green verge along the routeway.

The subject application contains c.825m long section of the Eastern Distributor Road including works on the Station Road junction. A bridge over the railway does not form a part of this application. For more details we refer to a pack prepared by DBFL.

It is submitted that the subject application does not materially amend the Distributor Road application.

Station Car Park Access

Within the first Phase 1, a new station car park access will be provided off the distributor road. To ensure the operation of the station car park a continuous access is to be guaranteed in any stages of construction. Irish Rail have confirmed their acceptance of the proposal and a letter of consent was obtained from CIE, which is included in this application pack.

2no. Roundabouts on the R147

Alterations are also proposed to 2 no. roundabouts on the R147 (Old Navan Road) including enlarging the roundabout at the junction of the R147 (Old Navan Road) and L2228 (Station Road) and, widening of approach roads of the roundabout (including adjustments to footpaths and revised road markings) at the junction of the R147 and R156 (including northbound slip road to M3); both with ancillary site development and landscape works and being in the townlands of Clonee and Loughsallagh, Dunboyne, Co. Meath.

2.3 Development Inputs

Water Supply

There is an existing 200mm watermain that runs along Station Road. There is no existing watermain infrastructure within the subject site. A watermain connection for the railway station is present within the existing station access road.

In line with the pre-application enquiry response, a single 200mm connection will be made to the existing watermain that runs along Station Road to the southern boundary of the site (once upgraded to 400mm). A proposed 200mm diameter watermain will be laid along the eastern distributor road route with connections from this to the new residential development. 100mm/150mm diameter watermains with fire hydrants, sluice valves, individual metered connections and all other ancillaries required to conform to Irish Water standards will be provided throughout the site. The 200mm main will terminate temporarily in advance of the proposed road bridge until such a point that the main in the neighbouring proposed development on Carroll's Estate lands ('Western Development') is completed and a loop can be formed through connecting to the two networks. The proposed water supply network is based on the Department of the Environment 'Recommendation for Site Development Works' and the requirements of the Meath County Council.

The proposed watermain network system has been designed in accordance with the specifications and requirements of Irish Water.

Power Supply

ESB Networks have been contacted and existing ESB network map for the site and surrounding area was obtained by the project design team. A system of modular unit substations will be installed to provide power to the development.

Irish Water Connection

A pre-connection enquiry was made to Uisce Eireann for a connection to be made and was assigned pre-connection enquiry reference number CDS23008668.

The pre-connection enquiry for a Water and Wastewater connection at Station Road, Dunboyne, Co. Meath was reviewed by Uisce Éireann, and it was concluded that based on the details provided the proposed water connection is feasible subject to upgrades:

- In order to accommodate the proposed connection at the Premises, upgrade works are required to increase the capacity of the Uisce Éireann watermain network. Approximately 530m of existing 200mm ID watermain is required to be upsized to 400mm ID watermain. These extension works are not currently on the Uisce Éireann investment plan therefore, the applicant will be required to fund these local network upgrades. The fee will be calculated at connection application stage.

- A 200mm ID connection is to be made to the existing 200mm ID main to the South of the site with the above mentioned upgrades in place.

2.4 Development Outputs

Surface Water

The site has been divided into 13 sub-catchments, each surface water sub-catchment will collect runoff via a combination of SuDS features and traditional piped connections prior to discharge to one of the proposed attenuation storage systems. After attenuation, the surface water is released at a controlled rate via a Hydrobrake manhole or similar approved to a discharge point on an existing surface water sewer or a receiving existing watercourse. As requested by MCC the majority of the site will discharge to the east, towards the Tolka, with a small portion of the site in the south west corner of the development unable to outfall to the east given the site levels. It is proposed for this sub-catchment to discharge to the existing surface water attenuation system within the Dunboyne Rail Station. The run-off directed to the existing network shall be equivalent to the drained area of the removed access road in order to utilise the existing attenuation system.

Foul Water

Chapter 7: Hydrology deals process and foul effluent associated with the proposed developments. All effluent generated in Dunboyne is conveyed to the Regional Wastewater Treatment Plant (Leixlip Wastewater Treatment Plant).

There is an existing 450mm diameter foul sewer which traverses The Western Development site from Navan Road to the railway line before heading below the railways

tracks and connecting into an existing 300mm/450mm foul sewer running along the length of the western border of The Eastern Development.

According to the Irish Water Guidelines, it has been calculated that the predicted peak will be 26.39 l/sec, however, using the EN752 method in MICRODRAINAGE the peak flow is cumulatively 27.8 l/s. The pipes have been sized in MICRODRAINAGE to accommodate the larger value.

The foul infrastructure for the development will be a standalone gravity sewer system, divided into the catchments. Each housing unit will be provided with an individual connection to a new sewer located under the development internal access roads. Foul sewage in apartment blocks will be drained on separate systems via 150mm diameter pipes. The new sewer within the development will be 225mm in diameter unless noted otherwise.

It is noted that proposals by Uisce Eireann entail the construction of a foul sewer diversion at flatter than optimal grades required for cleansing. It is also noted that the existing 300/450mm sewer that traverses the western boundary serving existing residential developments also has less than optimal gradients. Gradients of the existing 450mm sewer range from 1:468 to 1:512, while one section has a 2mm fall for 40m in length. Considering this, the diversion of incoming flows away from the existing sewer may arise to poor cleansing and performance issues that are currently not being realised due to the flows being present. By utilising the existing sewer for the proposed development, flows are maintained while infrastructure is still provided for the future diversion of the incoming 300mm pipe if desired.

A pre-connection enquiry (PCE) was made to Uisce Eireann in November of 2023 which stated that the proposed development was "feasible without infrastructure upgrade by Uisce Eireann", however, the sewer shown in the PCE to serve as a connection point for the development was confirmed to be an error in Uisce Eireann's system. Through discussions with Uisce Eireann, the sewer subsequently designated to serve as a connection point lies approximately 350m south of the proposed development and necessities a crossing of a tributary of the Tolka river. Additionally, Uisce Eireann has requested the existing 300mm sewer entering site at northwest boundary to be diverted through site to this connection point while maintaining the existing 300/450mm sewer along the western boundary. Refer to Appendix A for Uisce Eireann Pre-Connection confirmation of feasibility letter.

Waste Management

Resource Waste Management Plan - A detailed Resource Waste Management Plan has been prepared by Enviroguide and is submitted as part of the application documentation. The Plan outlines the responsibilities of relevant persons on the site regarding waste management, with a nominated Construction Waste Manager to be appointed by the Project manager to oversee all aspects of waste management throughout the project, including waste characterisation, implementation of the Construction Waste Management Plan and effective communication of the plan objectives with all site operatives.

Construction Environmental Management - A Construction Environmental Management Plan has been prepared by Enviroguide and is submitted with this application documentation to outline the objectives of managed procedures required to ensure that construction related activates on the site are executed in a safe and controlled manner to prevent any adverse impacts on the surrounding existing environment.

The submitted plan considers all aspects of the project in its environmental assessment, including construction programme and phasing, enabling works, a description of works,

site logistics, indicative construction methods and safety, health and environmental provision.

All appropriate mitigation and preventative measures that will be taken to mitigate any impact on the surrounding environment are outlined in the CEMP submitted.

Operational Waste Management– A Construction Environmental Management Plan has been prepared by Enviroguide and is submitted with this application documentation.

2.5 Design/ Development Rationale

The subject lands are appropriately zoned and have been earmarked for residential development for c. 20 years, inclusive of a distributor road through the zoned lands. The lands were included within Integrated Action Area Plan for Land East of the Railway Line, Dunboyne 2006 (non-statutory document) and Dunboyne Clonee Pace Local Area Plan 2009-2015, which provided a detailed strategy showing how the lands could be appropriately developed as a new residential neighbourhood to the east of Dunboyne Town Centre, including a distributor road. Despite the publishment of this detailed Action Area Plan in 2009, no development on the subject lands has come to fruition to date.

The Dunboyne Clonee Pace Local Area Plan has been superseded by a Written Statement and Land Use Zoning Map contained in Volume 2 of the Meath County Development Plan 2021-2027, which offers the most recent relevant planning context for the lands. The site has remained appropriately zoned for residential development with few small modifications including an update to the envisaged distributor road route.

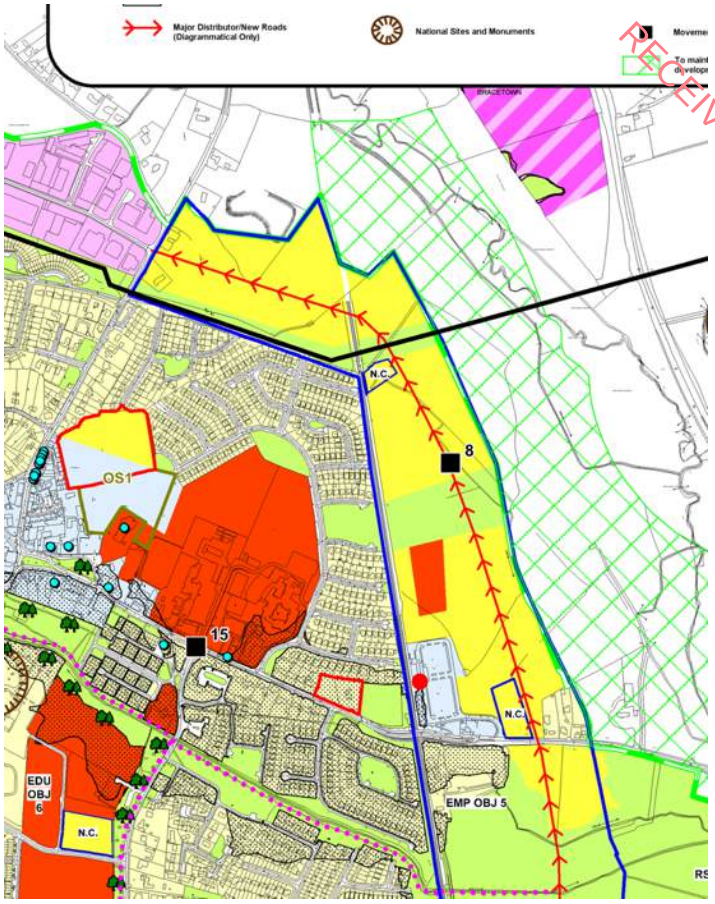


Figure 2.8 – Extract from Dunboyne Clonee Pace Local Area Plan 2009-2015 – Specific Objectives

Dunboyne/ Clonee/ Pace form separate section of Volume 2 Written Statement and Maps for Settlements.

Land Use Strategy:

> *"The strategic location of Dunboyne and Clonee along a multi-modal road and rail corridor in the Dublin Metropolitan Area makes the area well positioned to accommodate significant population growth and economic investment.*
>
> *The Development Strategy for the area is to build on recent economic successes and to continue to promote the area as a location of choice for high tech, pharmaceutical, logistics, warehousing, and other employment generating uses. An integrated approach will be taken to transport and land use policy in the area. This will ensure that future investment will be concentrated on strategic employment and residential lands along the M3 Parkway Commuter rail line.*
>
> *Residential growth will also be focused on centrally located lands in proximity to the rail stations in the town. There are additional strategic sites that have been identified for residential uses however they will not be available for development until after 2026. The identification of these lands provides clarity and direction with regard to the long term growth strategy of this Metropolitan settlement."*

The applicant now endeavours to facilitate this long-standing objective to develop residentially zoned lands including a section of Dunboyne Eastern Distributor Road as one of key strategic roads. The proposed route of the Distributor Road is consistent with the envisaged route as outlined in the Meath County Development Plan.

Chapter 5 of the Meath Development Plan (2021-2027) introduces objective MOV OBJ 52 which states:

> *"To continue to support the delivery of key strategic roads within Dunboyne to include an eastern distributor road to facilitate rail-focused development, new bus routes and reduce traffic levels in the town."*

The proposed Eastern Distributor Road forms a part of wider concept to deliver a full length of a distributor road form R157 to Rooske Road and to deliver residential development on appropriately zoned lands to the east of Dunboyne as proposed in the Development Plan 2021-2027.

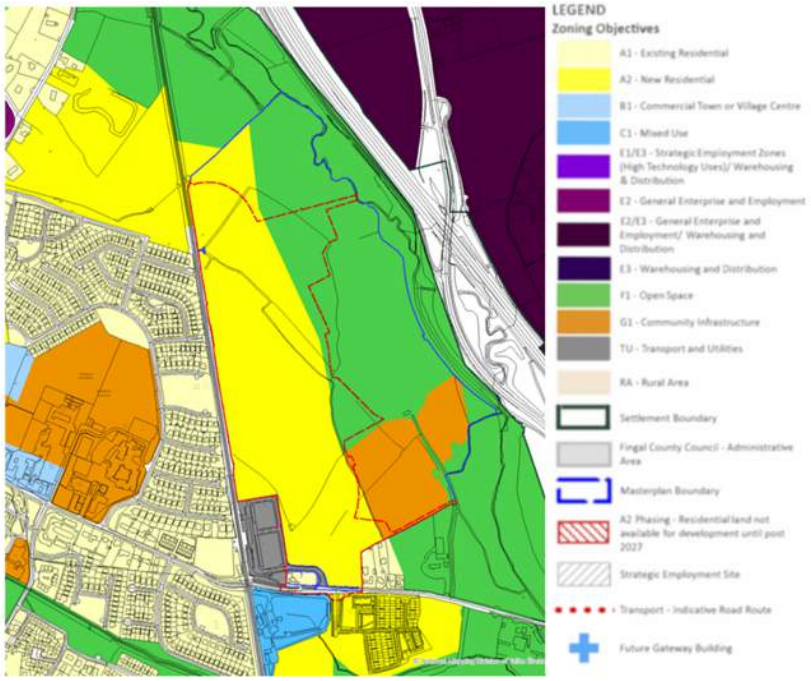


Figure 2.9 – Extract from Meath County Development Plan 2021-2027

The proposed level of development has been based on a review of strategic planning policy and following extensive consultation with Meath County Council and is considered appropriate for the subject site. We understand that there is a focus on the need to increase densities in urban areas at appropriate sites and a number of measures need to be balanced in the context of the surrounding built context and residential properties. This approach is supported across planning policies and documents, e.g. *Sustainable Urban Housing: Design Standards for New Apartments (2023), The Urban Development and Building Height Guidelines for Planning Authorities 2018, Sustainable Residential Development in Urban Areas (2009) / Urban Design Manual (2009) Guidelines, Sustainable Residential Development and Compact Settlements Guidelines (2024)*, as well as *Meath County Development Plan 2021-2027*.

Furthermore, the proposal has been informed by site constraints and opportunities such as:

- Zoning and proposal for a distributor road including a bridge (subject to a separate planning application);
- Proximity of Dunboyne train station and train line;
- Railway buffer zone;
- Station Road;
- Overhead power lines and their buffer zone;

- Existing wayleave;
- Existing development; and
- Cultural heritage – archaeological zones and their buffer zones

The proposed site layout consists of 3 key areas as follows:

- Gateway Hub – an area of higher density and increased height apartment development including non-residential uses to the south adjacent to the train station

Figure 2.10 – CGI of Block A on Station Road

- Area of duplex development and a focal point with apartment block to the north to enhance frontage along the distributor road and to enclose the subject site

Figure 2.11 – CGI of area along the EDR

- Area of house development to the central western part of the site

Figure 2.12 – CGI of house development

We refer the Planning Authority to the enclosed drawings and Design Statement prepared by MCORM Architects for further details on this scheme. It is considered that the design proposed provides a contemporary architectural solution that maximises the development potential of the site all the while respecting the established character of the surrounding area. The site layout boasts a number of attractive landscaped public open space areas. Vehicular access is proposed via the distributor road (outlined in the Development Plan). While the subject application includes a section of the Distributor Road form Station Road to bridge embankments, the full length of the Distributor Road between Station Road to Navan Road including an overbridge is subject of a separate planning application.

We confirm that the proposed development has been designed within the context of the zoning objectives for the lands, and the policies contained in the Statutory Development Plan.

No alternative locations were considered by the applicant for the development given Meath County Councils longstanding objectives to develop the subject site as a residential offering and the sites appropriate zoning for residential development. However, a number of alternative designs and layouts were considered throughout the project design stages, which have been addressed as appropriate in Chapter 4: Alternatives of this Environmental Impact Assessment Report.

2.7 Characteristics of the Construction and Operation Phases

Subject to a grant of planning permission, the construction phase will take place over a 10-year period. The phasing for the Proposed Development will be in 4 no. parts as follows:

- Phase 1 – Character area one (315 units); 142 apartments, 50 duplex, 123 houses and includes retail unit and stand-alone creche.
- Phase 2 - Character area two (183 units); 36 duplex and 147 houses.

- Phase 3 - Character area three (213 units); 114 apartments, 26 duplex, 73 houses and creche. Phase 4 - Character area one (142 units); 142 apartments.

Traffic

One of the main construction traffic generating activities will be associated with the removal of surplus and waste material arising from the enabling works.

The Site will be accessed through an entrance located on Station Road. Separation of vehicular and heavy plant traffic from pedestrians and operatives will be implemented as far as is practical when considering the layout of the site infrastructure and access points. No public personnel, be it pedestrian or vehicular, will be permitted to enter the site.

The Contractor shall be responsible for site security at the entrance to the site and thereby control the movement of traffic to and from the site. The contractor shall be responsible to maintain and keep the entrance area clean and tidy and free from construction debris. Appropriate signage shall be positioned at approach roads to the site area so as to inform the public of the site activities.

The Contractor will ensure that trucks exiting the site do not carry soil or debris from the site onto the local road network. If required, trucks exiting the site will pass through a wheel wash. Where required, all trucks will be covered in accordance with the details outlined in the CEMP (Enviroguide, 2023).

Construction Compound and Waste Management

All construction support related activities will be contained within the site. This will include office facilities, welfare facilities such as toilets and canteens. Designated areas will be maintained for materials handling, waste segregation and temporary storage of soils (e.g., of skips or stockpiled material until a viable load is available or if pending waste classification).

Materials handling and plant storage including waste shall be contained within the boundary of the Proposed Development site. The compound area will be segregated from the construction site. Warning signs will illustrate the required PPE and risks associated when entering the construction Proposed Development.

The dedicated waste storage areas within the waste segregation points will house all bins and skips for the storage of segregated construction waste generated. All containers will be marked with clear signage which will identify which waste types are to be placed into each container.

Construction Hours

Construction hours will be subject to planning permission and associated conditions. However it is noted that it may be necessary for construction to take place outside of normal construction hours in the case of services diversions and connections, concrete finishing and fit out works.

Normal site working hours for the construction phase will be 08:00 and 18:00, Monday to Friday, and 08:00 to 14:00 on Saturdays.

No works are envisaged to be carried out on Sundays or Bank Holidays.

Should there be a requirement, in exceptional circumstances, for works outside of the normal site working hours a written submission seeking authorisation will be made to Meath County Council (MCC).

Works will take account of any restrictions identified in the grant of planning.

Vehicular Access to Site during Construction

The delivery of materials will be managed to prevent over supply to the site. Deliveries will be managed upon arrival to the site and systems will be put in place in order to avoid any queuing of delivery vehicles.

No parking of construction related vehicles will be permitted on the adjoining road network and adequate parking facilities will be made available within the Construction Compound for all site workers during the course of the construction phase. Where possible construction workers will be encouraged to use public transport.

2.8 Monitoring

Construction Noise

All construction activities will be carried out in compliance with the recommendations of BS 5228 Noise Control on Construction and Open sites.

Potential Sources of Noise include construction activities on site which may involve the use of heavy machinery. It is submitted that contractors will ensure the careful selection of quiet plant and machinery to undertake work where available.

Any ancillary plant such as generators, pumps or compressors will be located in areas on the site away from noise sensitive locations to minimise disturbance on the surrounding areas. Mechanical plant and equipment used for the purpose of works will be fitted with exhaust silencers and maintained in good working order.

A complaints procedure will be operated by the contractor throughout the construction phase and efforts will be made to address any noise issues at the nearest surrounding noise sensitive receptors, should they arise.

Air Quality and Dust Monitoring

Best practices will be employed throughout the construction period to ensure that emission to air of pollutants is appropriately minimised. Air monitoring will be carried out throughout the construction period as deemed necessary.

Construction materials will be appropriately handled and stored to ensure that any arising adverse effect from the generation of dust will be reduced or eliminated. Waste skips will be covered, scaffold netting will be used, and water will be used to suppress dust. Trucks and vehicles accessing and egressing the site will do so via a hardstanding area.

Construction material handling areas will be located as far away as is practical from any surrounding residential or public areas and prolonged storage of materials will be avoided where possible.

The burning of any waste materials will be strictly prohibited.

Vibration

The contractor will be required to carry out works such that the effect of vibration on adjacent buildings and the surrounding area is minimised and that no damage to these occurs because of construction activity on the site.

Potential sources of vibrations include construction activities on site which may involve the use of heavy machinery. The contractor will be required to comply with the requirements of the planning permission for any vibration limits on the for the works.

2.9 Sustainability

The proposed development will meet the requirements for Conservation of Fuel and Energy in Dwellings (Part L Building Regulations 2011), and as such will meet the requirements for compliance with Nearly Zero Energy Building Standards.

2.9 Cumulative Impacts

There are potential short term nuisances arising from the construction phase of the subject development.

In advance of works starting on site the works contractor will prepare a detailed Construction Environmental Management Plan (CEMP). The CEMP will set out the overarching vision of how the construction of the proposed development will be managed in a safe and organised manner by the contractor.

It is considered that these short-term impacts have the potential to combine with impacts arising from the construction of other permitted projects, should the construction period for each of these developments overlap.

Regular liaison with MCC will take place during the construction phase to make sure cumulative construction impacts are managed. The Main Contractor will be available for regular liaison meetings to discuss management of construction traffic on the local community should there be other construction projects taking place in the local area at the same time.

2.10 Decommissioning

Given the nature of the proposed development, residential use, road development and active open space, it is not envisaged that the proposed development will require closure or decommissioning in the future.

3 PLANNING AND DEVELOPMENT CONTEXT

The development lands are subject to national, regional, sub regional and county/ local planning policy.

This chapter considers the strategic and local level statutory planning context governing development on the application site, inclusive of a review of the relevant national and regional policy context and local statutory planning context for Wicklow County and the application site, with an aim to promote the proper planning and sustainable development of the subject site.

Expertise

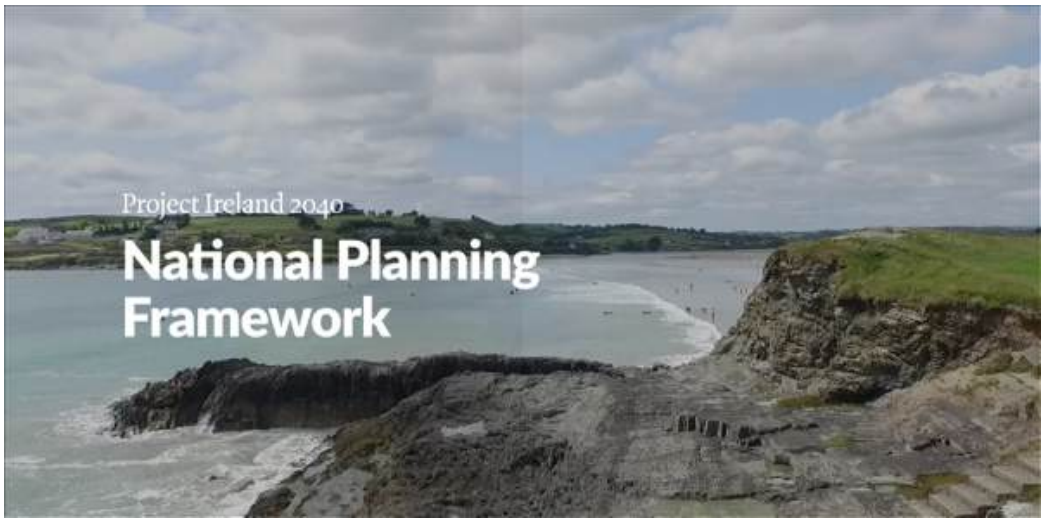
This chapter of EIAR has been prepared by Katarina Kanevova, planner, who completed her Master's Degree in Spatial Planning at Slovak University of Technology in Bratislava, Slovakia in 2010. Following her studies she worked in forward planning, specialised on land-use planning projects in Slovakia. Her main focus after moving to Ireland is on residential development. Katarina is a Corporate Member of the Irish Planning Institute.

3.1 Strategic Planning Policy Documents

It is our considered opinion that the key policy documents for consideration as part of this section are identified as follows:

- National Planning Framework – Project Ireland 2040
- Rebuilding Ireland: Action Plan for Housing and Homelessness
- Housing for All – A New Housing Plan for Ireland (2021)
- Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031
- Transport Strategy for the Greater Dublin Area 2016-2035

3.1.1 National Planning Framework – Project Ireland 2040



The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of our country out to the year 2040. It caters for:

- The extra one million people that will be living in Ireland by 2040.
- The additional two thirds of a million people working in Ireland by 2040; and
- The half a million extra homes needed in Ireland by 2040.

The Framework focuses on:

- Growing our regions, their cities, towns and villages and rural fabric.
- Building more accessible urban centres of scale.
- Better outcomes for communities and the environment, through more effective and coordinated planning, investment, and delivery.

As a strategic development framework, this Plan sets out the long-term context for the Country's physical development and associated progress in economic, social, and environmental terms and in an island, European and global context. Ireland 2040 will be followed and underpinned by supporting policies and actions at sectoral, regional, and local levels.

The key high - level objectives of the Plan are:

- To continue a path of economic, environmental, and social progress that will improve our prosperity, sustainability and well - being.
- To ensure that Irelands many unique assets can be built upon, with an emphasis on improving economic output and stability as well as quality of life, environmental performances and the liveability of Dublin, our cities, towns, and rural areas.
- To set out likely future change in Ireland and the spatial pattern required for effective and co-ordinated investment in a range of sectors to best accommodates and support that change.
- To put in place a strategy for the sustainable development of places in Ireland and how that can be achieved through planning, investment, and implementation.

The NPF sets out that the Eastern and Midlands region will, by 2040, be a Region of around 2.85 million people, at least half a million more than today. It is identified that progressing the sustainable development of sites close to public transport corridors is key to enabling growth.

It is worth highlighting that the projected level of population and jobs growth in the Eastern and Midland Regional Assembly area respectively represents 475,000 - 500,000 additional people and 330,000 additional jobs by 2040.

The national planning framework promotes the creation of mixed tenure communities by stating *"More affordable homes must be provided in our urban areas as part of the creation of mixed-tenure communities."*

It is also apparent from the NPF that low-density housing development, and underused sites, have been a feature of Ireland's housing landscape in cities, towns, and the open countryside. To avoid urban sprawl and the pressure that it puts on both the environment and infrastructure demands, increased residential densities are required in the urban areas.

The sites zoning allows for residential development and is considered appropriately serviced with appropriate infrastructure to deliver on a sustainable form of development.

It is submitted that the current proposal will deliver on the above objectives of the NPF. We note specifically that the addition of a wide range of unit typologies is appropriate at this highly accessible site, catering to a wide demographic of potential future residents.

The following policies are considered key in the context of this site:

National Policy Objective 1 -
Planning for a population in the Eastern and Midland Region of 490,000 - 540,000 additional people i.e. a population of around 2.85 million.

The current proposal provides for 853 no. residential units which will have the ability to house 2559 no. people in an urban neighbourhood in a proximity to high-capacity public transport, services and employment opportunities.

National Policy Objective 4 – *'Ensure the creation of attractive, liveable well designed, high quality urban places that are home to divers and integrated communities that enjoy a high quality of life and well-being.'*

The current proposal provides for 853 no. residential units specifically aimed at single occupants, families and young professionals together with residential amenity space, a café, 2 no. retail units, medical unit, community facility and 2 no. creches. The development is a well-designed and high-quality scheme and one that has carefully considered existing levels of residential amenities and the future needs of the residents to ensure a high quality of life and well-being. The proposal will offer an attractive place to live for residents given proximity to local public transport offerings and local services and social infrastructure at Dunboyne.

National Policy Objective 6 -
Regenerate and rejuvenate cities, towns and villages of all types and scale as environmental assets, that can accommodate changing roles and functions, increased residential population and employment activity and enhanced levels of amenity and design quality, in order to sustainably influence and support their surrounding area.

The current proposal delivers a well-designed, high-quality scheme and one that has carefully considered existing levels of residential amenities and the needs of existing and future residents in the area. The proposal offers up the potential to cater for an increase in population of 2559 people at a site forming a natural extension of Dunboyne.

National Policy Objective 11 -
In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns, and villages, subject to development meeting appropriate planning standards and achieving targeted growth.

Again, the subject site is strategically located adjacent to Dunboyne Station and forms a natural extension of Dunboyne, a town within Dublin Metropolitan Area. The site is located within a defined 'urban neighbourhood' in a proximity to high capacity public transport, services and employment opportunities. The proposed development represents a dynamic and appropriately considered design response paying particular attention to the surrounding area. All relevant planning standards are delivered, as outlined in this report, and in accordance with relevant ministerial guidance and the Meath County Council Development Plan 2021-2027.

National Policy Objective 31 -

Prioritise the alignment of targeted and planned population and employment growth with investment in the provision of childcare facilities and new and refurbished schools on well located sites within or close to existing built-up areas that meet the diverse needs of local populations.

There are 2 no. childcare facilities (c. 394 and c. 400 sqm) proposed to accommodate demand on childcare risen from the subject development.

National Policy Objective 32 -
To target the delivery of 550,000 additional households to 2040.

The subject proposal for 853 no. residential units will assist with the realisation of the above objective of the NPF.

National Policy Objective 33 -
Prioritise the provision of new homes at locations that can support sustainable development and at an appropriate scale of provision relative to location.

The proposal is located on an opportunely located site close to public transport, community facilities and employment hubs and is at an appropriate scale with the existing character of the surrounding area. The sites location at the entrance to Dunboyne; proximity to local services; accessibility to a proposed high frequency transport node (DART+ West); all confirm the opportunities this site offers to deliver on a sustainable approach to development.

National Policy Objective 34 –
Support the provision of lifetime adaptable homes that can accommodate the changing needs of a household over time.

All residential units as proposed are adaptable and considered appropriate for cross-generational use.

We submit that the proposal for a residential development at this location is consistent with the National Planning Framework for 2040.

3.1.2 Draft First Revision to the National Planning Framework, 2024

Following a decision of Government in June 2023, the preparation of a revised National Planning Framework commenced. This Draft Framework has been published in July 2024 and has revised and updated the NPF to take account of changes that have occurred since it was published in 2018 and to build on the framework that is in place. The revised Framework sets out that in the period between 2022 and 2040 it is expected that there will be roughly an extra one million people living in our country. The updated projection is that the population of Ireland will increase to approximately 5.7 million by 2030 and 6.3 million people by 2040. This population growth will require new jobs and new homes.

The Draft Revised NPF sets out the following in relation to development and growth in Dublin and the Metropolitan Area:

- *"Supporting the future growth and success of Dublin as Ireland's leading global city of scale, by better managing Dublin's growth to ensure that more of it can be accommodated within and close to the city and in the metropolitan area.*
- *Enabling significant population and jobs growth in the Dublin metropolitan area, together with better management of the trend towards overspill into surrounding counties."*

The following revised policies are considered key in the context of the proposed development:

Revised National Policy Objective 3 –
"Eastern and Midland region: approximately 470,000 additional people between 2022 and 2024 (c. 690,000 additional people over 2016-2040) i.e. a population of just over 3 million."

Revised National Policy Objective 10 –
"Deliver Transport Orientated Development (TOD) at scale at suitable locations, served by high capacity public transport and located within or adjacent to the built up area of the five cities or a metropolitan town."

Revised National Policy Objective 12 –
"Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being."

Revised National Policy Objective 14 –
"Regenerate and rejuvenate cities, towns and villages of all types and scale as environmental assets that can accommodate changing riles and functions, increased residential population and employment activity, enhanced levels of amenity and design and placemaking quality, in order to sustainably influence and support their surrounding area to ensure progress toward national achievement of the UN Sustainable Development Goals."

Revised National Policy Objective 22 –
"In urban areas, planning and related standards, including in particular building height and car parking will be based on performance criteria that seek to achieve well-designed high quality outcomes in order to achieve targeted growth."

Revised National Policy Objective 20 –
"In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth."

Revised National Policy Objective 46 –
"Increase residential density in settlements, through a range of measures including reductions in vacancy, re-use of existing buildings, infill development schemes, area or site-based regeneration, increased building height and more compact forms of development."

The proposed large scale residential development is well-aligned with the overarching goals of the Draft Revised NPF. The higher density development is focused in the area directly adjacent to a proposed high capacity train station serving Dublin Metropolitan Area and forms a natural extension of Dunboyne. The subject proposal encourages sustainable urban development and helps to utilise potential of the subject site.

The proposed large scale residential development not only meets but actively supports the key policy objectives outlined in the Draft Revised NPF. As such, the development is both appropriate and necessary for achieving the long-term strategic goals for Dublin metropolitan area.

We submit that the proposed development is consistent with the Draft First Revision to the National Planning Framework – Project Ireland 2040.

3.1.3 Rebuilding Ireland: Action Plan for Housing and Homelessness

The action plan for housing and homelessness recognises that a significant increase in new homes is required. The action plan outlines a 5 pillar approach as follows:

- Pillar 1 - Address Homelessness
- Pillar 2 - Accelerate Social Housing
- Pillar 3 - Build More Homes
- Pillar 4 - Improve the Rental Sector
- Pillar 5 - Utilise Existing Housing

The plan outlines that *"Accelerating delivery of housing for the private, social and rented sectors is a key priority for the Government. Ensuring sufficient stable and sustained provision of housing that is affordable, in the right locations, meets peoples different needs and is of lasting quality is one of the greatest challenges facing the country at present."*

The plan repeatedly states the need for housing to be in appropriate locations, *"In addition to the scale of housing provision, the delivery of housing in the right place is also central to enabling a good standard of living and improving quality of life. Locating housing in the right place provides the opportunity for wider family and social networks to thrive, maximises access to employment opportunities and to services such as education, public transport, health and amenities, while also delivering on sustainability objectives related to efficiency in service delivery and investment provision."*

The proposed development supports Pillar 3 of the plan specifically by way of the delivery new residential units at a key location in proximity to services and amenities. The site has the benefit of accessibility to public transport services and is considered a significant opportunity site for the delivery of residential units. The proposal also supports Pillar 2 and will provide for Part V units.

We submit that the proposal is consistent with the Action Plan for Housing and Homelessness.

3.1.4 Housing For All – A New Housing Plan for Ireland

The Housing for All (HFA) plan has been introduced by the Government in order to achieve a more sustainable housing system with a planning system that is fit for purpose and that will create long-term vibrant communities with the necessary supporting infrastructure. It caters for:

- Preventing homelessness
- Protecting tenants
- Supporting social inclusion

The plan focuses on:

- Introducing incentives and measures to bring vacant and derelict properties back into residential use.
- Supporting homeownership and increasing affordability.
- Preventing homelessness, protecting tenants and supporting social inclusion and increasing social housing delivery.
- Increase the levels of new housing stock with the goal of ending homelessness by 2030.
- Achieve a more sustainable housing system with a planning system that is fit for purpose and that will create long-term vibrant communities with the necessary supporting infrastructure.
- Increasing the capacity and efficiency of delivery in both public and private sectors.
- Over 300,000 new homes to be built by 2020, including a projected 54,000 affordable homes for purchase or rent and over 90,000 social homes.
- Setting out a pathway to economic, societal and environmental sustainability in the delivery of housing.

The HFA is to be the largest State led building programme in our history and is financed by the biggest State funding commitment ever. The HFA also has the largest ever housing budget in the history of the State to transform our housing system, with an excess of €20 bn in funding through the Exchequer, the Land Development Agency (LDA) and the Housing Finance Agency over the next five years.

It is also apparent from the HFA plan that high-density housing is to be supported. Within the plan, a new fund the Croí Cónaithe (Cities) Fund has been introduced to further the implementation of planning permissions for apartments. Housing policy objective 15, no. 15.1 states that the HFA plan will *"Introduce the Croí Cónaithe (Cities) Fund to ensure that*

planning permissions for apartments in high density areas already secured by 2021 are activated by the end of 2025 for build to sell."

In addition to this, the new fund will focus on "*activating housing supply through enhanced viability measures targeted at developing properties for individual household purchasers, including first-time buyers and right-sizers.*" The fund will "*stimulate activation of existing planning permissions for build-to-sell apartment developments of four floors or more, above a certain density threshold, and this will be complemented by the sanction of a tax to activate vacant lands for residential purposes.*"

Moreover, housing policy objective 11, no. 11.2 supports high-density housing: "*Develop section 28 Guidelines for Planning Authorities on Sustainable and Compact Settlement Guidance (SCSG), including guidance on housing typologies to facilitate innovative approaches to medium and higher densities.*"

Additionally, housing policy objective 12, no 12.2 is to deliver a new approach to active land management: "*Develop proposals for new Urban Development Zones, to DHLGH deliver a coordinated and transparent approach to the delivery of residential and urban development, particularly on brownfield sites, meeting the compact growth objectives of the National Planning Framework.*"

Furthermore, the HFA plan will drive economic sustainability and reduce constructions costs. Objective 23, 23.11 states that the HFA plan will "*Reduce C&D waste and associated costs by working with the construction industry on demonstration projects to show how best practice (specifically in relation to urban high-rise apartment developments) waste segregation and other waste management measures, can reduce overall C&D disposal costs.*"

The subject proposal provides for a new residential development of 853 no. units which will contribute towards the government's target deliverance of 33,000 new residential units per year between 2021 and 2030.

We submit that the proposal is consistent with Housing for All – A New Housing plan for Ireland.

3.1.5 Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031

The *Regional Spatial and Economic Strategy for Eastern and Midland Regional Assembly* (RSES) has recently been published and adopted.

The RSES provides:

- **Spatial Strategy** – to manage future growth and ensure the creation of healthy and attractive places to live, work, study, visit and invest in.
- **Economic Strategy** – that builds on our strengths to sustain a strong economy and support the creation of quality jobs that ensure a good living standard for all.
- **Metropolitan Plan** – to ensure a supply of strategic development areas for the sustainable growth and continued success and competitiveness of the Dublin metropolitan area.
- **Investment Framework** – to prioritise the delivery of key enabling infrastructure and services by government and state agencies.
- **Climate Action Strategy** – to accelerate climate action, ensure a clean and healthy environment and to promote sustainable transport and strategic green infrastructure.

The RSES supports continued population and economic growth with high quality new housing promoted and a focus on the role of good urban design, brownfield redevelopment and urban renewal and regeneration. It is set out that there is an opportunity to promote and improve the provision of public transport, active travel and the development of strategic amenities to provide for sustainable communities.

Dunboyne is identified as a Self-Sustaining Growth Town within Settlement Typology and it is strategically located within a North-West corridor of significant growth (Maynooth/ Dunboyne commuter line /DART). This corridor has been identified as one of five strategic development corridors within the Metropolitan Area Strategy.

The following Housing and Regeneration Policy Objectives are considered relevant to the current proposal:

MASP Housing and Regeneration

> ***"RPO 5.4:*** *Future development of strategic residential development areas within the Dublin Metropolitan area shall provide for higher densities and qualitative standards as set out in the 'Sustainable Residential Development in Urban Areas', 'Sustainable Urban Housing; Design Standards for New Apartments Guidelines and 'Urban Development and Building Heights Guidelines for Planning Authorities."*
>
> *"**RPO 5.5:** Future residential development supporting the right housing and tenure mix within the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, and the development of Key Metropolitan Towns, as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns."*

We note that Dunboyne is located withing the North – West Strategic Development Corridor consisting of the Maynooth/ Dunboyne line and the Dart expansion which notes the following for this line:

> *"Strategic development areas along the Dunboyne/M3 parkway line include the Dublin Enterprise Zone (linked to improved bus connections), Hansfield lands and **the sequential development of lands in Dunboyne served by the M3 Parkway station**. The proposed electrification of the main Maynooth line, to be delivered by 2027, will support sequential growth in Leixlip and Maynooth."***[Our emphasis]**

Furthermore, Dunboyne is explicitly referenced in the Vision Statement for the Dublin MASP:

> *"This high-level vision is underpinned by spatial framework that supports the overall Settlement Strategy in Chapter 4 People and Place and sets out an integrated land use and transportation strategy for the sequential development of the metropolitan are, focused on:*
>
> - Consolidation of Dublin City and suburbs
> - Key Towns of Swords, Maynooth and Bray
> - Planned strategic development areas in Donabate, **Dunboyne,** Leixlip and Greystones." **[Our emphasis]**

Having reviewed the key policies of the recently adopted RSES document, we are of the view that the current proposal complies with the spirit and intent of RSES for the following reasons:

- The proposed development offers a variety of unit types and sizes to cater for a wide demographic. The proposal delivers an appropriate level of residential density at 55.3 units per ha and has had regard specifically to standards as set out in the 'Sustainable Residential Development and Compact Settlements Guidelines (2024)', the 'Sustainable Urban Housing - Design Standards for New Apartments Guidelines for planning Authorities (2023)' and 'Urban Development and Building Heights Guidelines for Planning Authorities (2018)' in ascertaining an appropriate residential density, height, and car parking provision for the site.
- The current proposal delivers a consolidated approach to development in that it maximises on height, delivers an appropriate site coverage and residential density along a key public transport corridor an in a proximity to a high capacity public transport node.

We submit that the proposal is consistent with the Regional Spatial and Economic Strategy for the Eastern & Midland Region.

3.1.6 Transport Strategy for the Greater Dublin Area 2016-2035

The National Transport Authority has prepared this strategy. The vision of this strategy is for the Greater Dublin Area to be a competitive, sustainable city-region with a good quality of life for all by 2030. The Greater Dublin Area covers the counties of Dublin, Meath, Kildare and Wicklow.

The Strategy includes five overarching objectives to achieve the vision, which are as follows:

- Build and strengthen communities
- Improve economic competitiveness
- Improve the built environment
- Respect and sustain the natural environment
- Reduce personal stress

The Strategy sets out measures to achieve the vision and objectives for the GDA. These include better integration of land use planning and transportation, consolidating growth in identified centres, providing more intensive development in designated town and district centres and control parking supply.

The Strategic Infrastructure proposals are presented by mode of transport and relate to heavy rail infrastructure, light rail infrastructure, bus infrastructure, cycling infrastructure, walking and road network.

We wish to highlight that the current proposal provides for almost 1no. parking space per an apartment/ duplex unit and typically 2no. parking per a dwelling.

We submit that the proposal for an appropriate residential development at this accessible location is supportive of the objectives of the Transport Strategy for the Greater Dublin Area 2016-2035.

3.2 Ministerial Guidelines

Each of the relevant strategic policy documents are now considered below and their relevance to the subject site and the developments compliance with same, is assessed in detail.

In accordance with the provisions of Section 34 of the Planning and Development Act 2000 (as amended) the planning authority when making its decision in relation to an application is required to have regard to any guidelines issued by the Minister under Section 28 of the Act and to apply any specific planning policy requirements (SPPRs).

A review of the proposal in terms of compliance with the following documents from a planning perspective has been completed.:

1. *Guidelines for Planning authorities on Childcare Facilities (2001)*
2. *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (January 2024)*
3. *Urban Development and Building Height Guidelines (2018)*
4. *Sustainable Housing: Design Standard for New Apartments (2023)*

Furthermore, following documents are acknowledge and compliance with them is addressed as listed

- *The Planning System and Flood Risk Management (2009)* – addressed in the Flood Risk Assessment prepared by JBA and Chapter 7

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (2009)* – addressed in the Appropriate Assessment Screening Report prepared by Enviroguide and Chapter 8
- *Design Manual for Urban Roads and Streets 2019* – addressed in the Design Manual for Urban Roads and Streets Compliance Statement prepared by DBFL and Chapter 13

3.2.1 Childcare Facilities - Guidelines for Planning Authorities (2001)

The Childcare Guidelines provide a framework to guide both local authorities in preparing development plans and assessing applications for planning permission, and developers and childcare providers in formulating development proposals. The Guidelines are intended to ensure a consistent approach throughout the country to the treatment of applications for planning permission for childcare facilities.

Section 2.4 of the guidelines set out the appropriate locations for childcare facilities, stating that:

> *"Planning authorities should require the provision of at least one childcare facility for new housing areas, unless there are significant reasons to the contrary or where there are adequate childcare facilities in adjoining developments."*

The guidelines acknowledge the factors associated with determining the appropriate level of childcare facilities required in an area, namely:

- The current provision of childcare in the area;
- The nature of emerging new communities; and
- Current demographic trends.

It specifically states that:

> *"The threshold for provision should be established having had regard to the existing geographical distribution of childcare facilities and the emerging demographic profile of the area."*

The Guidelines identify a number of appropriate locations for childcare facilities, which include the following:

- New Communities/Large Housing Developments
- The vicinity and concentrations of workplaces, such as industrial estates, business parks and any other locations where there are significant numbers working
- In the vicinity of schools
- Neighbourhood, District and Town Centres
- Adjacent to public transport corridors, park and ride facilities, pedestrian routes, and dedicated cycle ways

The provision of childcare facilities is further elaborated in Section 3.3.1 of the Guidelines which states that *"a standard of one childcare facility providing for a minimum 20 childcare places per approximately 75 dwellings may be appropriate"* for new residential developments.

The recommendation for new housing developments is the provision of 1 facility for each 75 dwellings. This will generally provide for 20 childcare spaces based on a requirement of 35 of such dwellings requiring childcare spaces. The guidelines state that 50% of units can be assumed to require childcare.

However, they continue by clarifying that such Guidelines are exactly that – guidelines and not a strict prescription or requirement – and the provision of childcare facilities will depend on the particular circumstances of each individual site and development.

Please see the childcare facilities audit in the Community Infrastructure Statement prepared by BMC and Section 7.3 of the Planning Report for detail in relation to compliance with the above guidelines.

Circular Letter PL3/2016

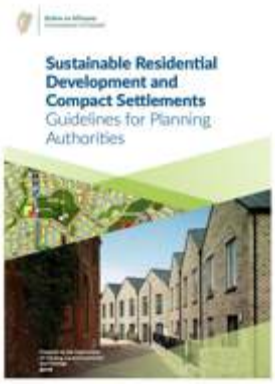
The Department of Environment, Community and Local Government issued a Circular Letter (PL03/2016 – childcare facilities operating under the Early Childhood Care Education (ECCE) Scheme (Planning system support for childcare post September 2016 – Implementation of the Early Childhood Facility Guidelines for Planning Authorities 2001) in which it noted that the Early Childhood Care Education (ECCE) has been expanded to make it available to all children from the age of 3 years until they transfer to primary school.

The Department requests that Planning Authorities have:

> *"Insofar as possible, consideration of all planning applications or Section 5 declaration submissions in respect of childcare facilities in order to facilitate the expansion of required capacity as appropriate"*

The recommendations under this circular make appropriate rather than blanket provision for childcare through the development management process, having regard to childcare policy, local demographics, and existing or required (additional) provision within a given catchment area.

3.2.2 Sustainable Residential Development and Compact Settlements Guidelines - January 2024



The Sustainable Residential Development and Compact Settlement Guidelines were published on the 15th January 2024 to set out policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements. The guidelines replace the Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities, which were issued as Ministerial Guidelines in 2009.

The Guidelines build on and update previous guidance to take account of current Government policy and economic, social and environmental considerations. There is a renewed focus in the Guidelines on the renewal of existing settlements and on the interaction between residential density, housing standards and quality urban design and placemaking to support sustainable and compact growth.

Policy and Objective 3.1 states that these Guidelines are the predominant context for assessment of densities defined in development plans:

"It is a policy and objective of these Guidelines that the recommended residential density ranges set out in Section 3.3 are applied within statutory development plans and in the consideration of individual planning applications, and that these density ranges are refined further at a local level using the criteria set out in Section 3.4 where appropriate."

Section 3.3 identifies the settlement categories and density ranges for various site locations. The national settlement hierarchy defined by the NPF, RSES and County Development Plan forms the basis for the density approach. Dunboyne is located within the Dublin City and Metropolitan Area in the RSES settlement hierarchy and is categorised as a **Self-Sustaining Growth Town in the Meath County Development Plan 2021-2027.**

Dunboyne would therefore be defined as a Metropolitan town according to the 2023 guidelines which is defined as follows:

> ***Metropolitan Towns (>1,500 population) – Centre and Urban Neighbourhoods***
>
> *The centre and urban neighbourhoods category includes: (i) the town centre and immediately surrounding neighbourhoods, (ii) strategic and sustainable development locations, and (iii) lands around existing or planned high capacity public transport nodes or interchanges (defined in Table 3.8). It is a policy and objective of these Guidelines that residential densities in the range* ***50 dph to 150 dph*** *(net) shall generally be applied in the centres and in urban neighbourhoods of Metropolitan Towns.* **[BMC Emphasis]**

Consideration of Proximity and Accessibility to Services

Within Step 1 of Refining Density the accessibility of the site has been evaluated.

We note the site is within close proximity and accessibility to proposed high capacity public transport node Within DART+ West (Dunboyne Station). The definition for a 'High Capacity Public Transport Node or Interchange' is outlined in Table 3.8 of guidelines as follows:

"High Capacity Public Transport Node or Interchange:

- Lands within 1,000 metres (1km) walking distance of an existing or **planned high capacity urban public transport node** or interchange, namely an interchange or node that includes **DART**, **high frequency Commuter Rail**, light rail or MetroLink services; or locations within 500 metres walking distance of an existing or planned BusConnects Core Bus Corridor stop.
- Highest densities should be applied at the node or interchange and decrease with distance.
- 'Planned public transport' in these Guidelines refers to transport infrastructure and services identified in a Metropolitan area Transport Strategy for the five cities where a public authority (e.g. National Transport Authority, Transport Infrastructure Ireland or Irish Rail) has published the preferred route option and stop locations for public transport.

  [BMC Emphasis]

We can confirm that the subject site meets the criteria above as its proximity to the proposed public transport services namely Dunboyne Station (adjacent to the south-west part of the subject site) included in DART+ West (ABP NA29S.314232) that will provide an efficient and high capacity service at this location to and from Dublin City Centre. The net development area of the subject is located within 1000m from Dunboyne Station.

Considerations of Local Character and Amenity

The Guidelines note that Step 2 of refining density new developments should respond to the receiving environment in a positive way and should not result in a significant negative impact on the character including historic character, amenity or the natural environment.

Existing heights in the vicinity of the site range from 1-3 storeys to the SE (Castlefarm residential development and Loughsallagh residential development on Station Road) to 2 storeys to west of the site on the other side of railway. These areas are characterised in planning terms as low – medium suburban.

Furthermore, a study of recent planning applications in Dunboyne was undertaken by this office. Outcomes are summarised in a table below:

Figure 3.1 – Overview of recent significant planning application

No.	Reg Ref.	Address	Proposal	Density (net)	Distance from Subject Site	Distance to Transport Node
1	2360290 ABP 320049 (Decision to grant by the MCC, currently under appeal to ABP	Bennettstown (Adjacent to M3 Parkway Station)	267 no. units	51.5 uph	1.3km	150m (M3 Parkway Train Station)
2	RA180561 (granted on 24/09/2019)	Lands south Of Station Road, Dunboyne, Co. Meath	83 no. units	34.5 uph	<100m	220m (Dunboyne Train Station)
3	23849 (granted on 25/10/2023)	Castlefarm, Ruskin, Clonee, Dunboyne, Co. Meath	715 no. units	56.8 uph	300m	500m (Dunboyne Train Station)
4	2460625 (live application)	Carroll Estates Site Old Navan Road, Dunboyne	171 no. units	35.5 uph	<100m	650m

						(Dunboyne Train Station)
5	22675 (granted on 24/05/2023)	Station Road, Dunboyne, Co. Meath	21 no. units	35 uph	115m	<100m (Dunboyne Train Station)

Table 3.1 – Overview of recent significant planning application

As shown above, there have been no planning applications where the density exceeded 60 uph lodged/ granted in Dunboyne within last 5 years. It is noted that some of the applications listed above pre-date publication of the Sustainable Residential Development and Compact Settlement Guidelines.

Density Calculation

Appendix B of the Guidelines, sets out a methodology for measuring net site area and density for mixed use development. Based on Appendix B the net site area for this site is identified as 15.74 ha as per the figure below.

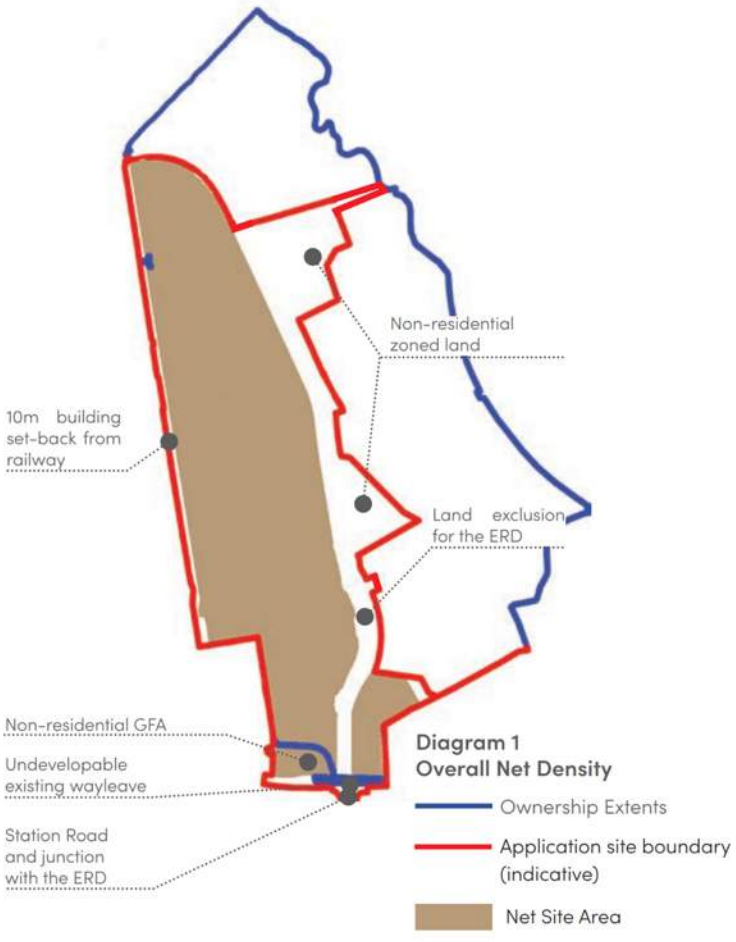


Figure 3.2 – Overall Site – Net Developable Area

Areas excluded from net area are as follows:

- Distributor Road including temporary areas needed for a construction phase
- Engineering connections outside main development area
- 10m wide Irish Rail exclusion zone
- 2no. roundabouts on R147
- Existing wayleave along the western boundary
- Lands zoned F1 and G1

Subsequently, the density has been calculated as follows, which aligns with the requirements of Appendix B of the Guidelines:

Metrics	Quantity	Unit of Measurement
Net Site Area	15.74	ha
Overall GFA	92960	sqm
Residential GFA	91326	sqm
Non-residential GFA	1626	sqm
Number of residential units	853	no. unit
Residential GFA as a portion of development	0.98	%
Site area for density purposes	15.43	ha
Residential density	55.3	uph

Table 3.2 – Density calculation – overall development

The overall extent of the subject site and various character and sub-character areas are considered. The higher densities are concentrated in focal points on two entrances to the site.

The southern end adjacent to the station forms a Gateway Hub with increased height, density and mix of land use. The proposed density of the Gateway Hub is 116.5 uph.

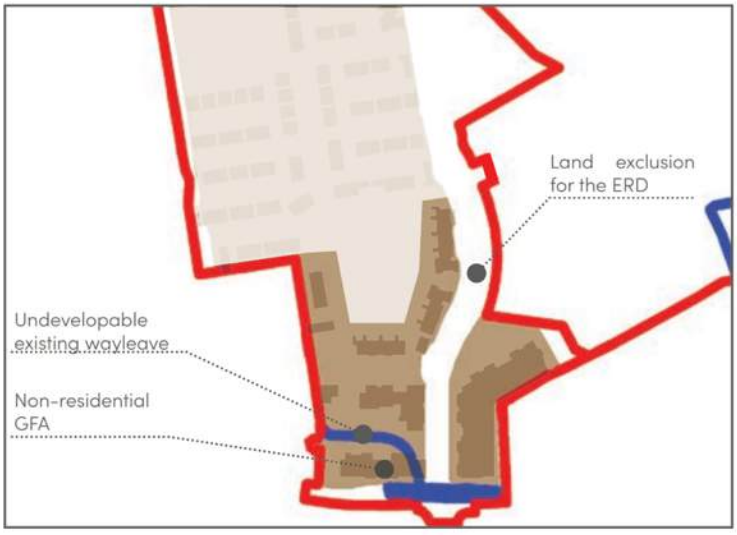


Diagram 2
Net Density of Gateway Hub

Ownership Extents
Application site boundary (indicative)
Area considered for Gateway Hub

Figure 3.3 – Gateway Hub – Net Developable Area

For details on calculations, we refer to Table 3 below:

Metrics	Quantity	Unit of Measurement
Net Site Area	3	ha
Overall GFA	37865	sqm
Residential GFA	36631	sqm
Non-residential GFA	1226	sqm
Number of residential units	338	no. unit
Residential GFA as a portion of development	0.97	%
Site area for density purposes	2.90	ha
Residential density	116.5	uph

Table 3.3 – Density calculation – The Gateway Hub

This approach is in compliance with Step 1: "Highest densities should be applied at the node or interchange and decrease with distance."

Furthermore, medium density is proposed along the distributor road to create a strong urban frontage including a focal point addressing a future bridge above the railway line (bridge subject to a separate application). Density in the central west part of the development reflects on adjoining residential amenity on the western side of the railway line in accordance with step 2 of the Guidelines.

Therefore, it is submitted that the overall density of 55.3 uph fits well in the required range of 50-150 uph, it is considered to be appropriately balanced and in compliance with The Sustainable Residential Development and Compact Settlements Guidelines.

It is clear that the subject proposal strikes a balance between respecting the existing and future pattern of development in proximity to the site, and meeting the Guidance provided in the Compact Settlement Guidelines.

3.2.2.1 Specific Planning Requirements

4 no. Specific Planning Policy Requirements relating to development standards for new housing developments are included within the Guidelines. Compliance with these 4 no. SPPR's is now outlined below for the benefit of the Planning Authority:

SPPR 1 – Separation Distances states that:

> *'It is a specific planning policy requirement of these Guidelines that statutory development plans shall not include an objective in respect of minimum separation distances that exceed 16 metres between opposing windows serving habitable rooms at the rear or side of houses, duplex units or apartment units above ground floor level. When considering a planning application for residential development, a separation distance of at least 16 metres between opposing windows serving habitable rooms at the rear or side of houses, duplex units and apartment units, above ground floor level shall be maintained. Separation distances below 16 metres may be considered acceptable in circumstances where there are no opposing windows serving habitable rooms and where suitable privacy measures have been designed into the scheme to prevent undue overlooking of habitable rooms and private amenity spaces.*

There shall be no specified minimum separation distance at ground level or to the front of houses, duplex units and apartment units in statutory development plans and planning applications shall be determined on a case-by-case basis to prevent undue loss of privacy. In all cases, the obligation will be on the project proposer to demonstrate to the satisfaction of the planning authority or An Bord Pleanála that residents will enjoy a high standard of amenity and that the proposed development will not have a significant negative impact on the amenity of occupiers of existing residential properties.'

It is submitted that t**he proposal is fully compliant with the** minimum separation distance of 16m between opposing windows serving habitable rooms at the rear or side of houses. Separation distances have been also maintained from neighbouring houses to ensure minimal loss of privacy and amenity. Proposed separation distances as follows:

- Minimum back to back separation – 22m
- Maximum back to back separation – 27.7m

SPPR 2 – Minimum Private Open Spaces for Houses states that:

'It is a specific planning policy requirement of these Guidelines that proposals for new houses meet the following minimum private open space standards:

1 bed house 20 sq.m

2 bed house 30 sq.m

3 bed house 40 sq.m

4 bed + house 50 sq.m

A further reduction below the minimum standard may be considered acceptable where an equivalent amount of high quality semi-private open space is provided in lieu of the private open space, subject to at least 50 percent of the area being provided as private open space (see Table 5.1 below). The planning authority should be satisfied that the compensatory semi-private open space will provide a high standard of amenity for all users and that it is well integrated and accessible to the housing units it serves.

Apartments and duplex units shall be required to meet the private and semiprivate open space requirements set out in the Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities 2023 (and any subsequent updates). For building refurbishment schemes on sites of any size or urban infill schemes on smaller sites (e.g. sites of up to 0.25ha) the private open space standard may be relaxed in part or whole, on a case-by-case basis, subject to overall design quality and proximity to public open space.

In all cases, the obligation will be on the project proposer to demonstrate to the satisfaction of the planning authority or An Bord Pleanála that residents will enjoy a high standard of amenity.

This SPPR will not apply to applications made in a Strategic Development Zone until the Planning Scheme is amended to integrate changes arising from the SPPR. Refer to Section 2.1.2 for further detail'.

It is submitted that all houses meet minimum requirements.

We can confirm private open space for all units exceeds the private open space standards as set out below.

Unit	Minimum Standards	Proposed
1 bed	20 sqm	N/A

2 bed	30 sqm	81 - 95 sqm
3 bed	40 sqm	60 - 165 sqm
4 bed+	50 sqm	75 - 130 sqm

Table 3.4 – Comparison SPRR2 Private Open Space Standards and Proposed Private Open Space

For more details we refer to the Housing Quality Assessment prepared by BBA included with this application.

SPPR 3 – Car Parking states that:

> *It is a specific planning policy requirement of these Guidelines that:*
>
> *(i) In city centres and urban neighbourhoods of the five cities, defined in Chapter 3 (Table 3.1 and Table 3.2) car-parking provision should be minimised, substantially reduced or wholly eliminated. The maximum rate of car parking provision for residential development at these locations, where such provision is justified to the satisfaction of the planning authority, shall be 1 no. space per dwelling.*
>
> *(ii) In accessible locations, defined in Chapter 3 (Table 3.8) car- parking provision should be substantially reduced. The maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 1.5 no. spaces per dwelling.*
>
> *(iii) In intermediate and peripheral locations, defined in Chapter 3 (Table 3.8) the maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 2 no. spaces per dwelling.*
>
> *Applicants should be required to provide a rationale and justification for the number of car parking spaces proposed and to satisfy the planning authority that the parking levels are necessary and appropriate, particularly when they are close to the maximum provision. The maximum car parking standards do not include bays assigned for use by a car club, designated short stay on–street Electric Vehicle (EV) charging stations or accessible parking spaces. The maximum car parking standards do include provision for visitor parking.'*

This SPPR does not refer particularly to 'High Capacity Public Transport Node or Interchange' locations in a Metropolitan Town such as the site at the subject site. It is our professional opinion that the requirements for (i) City centres and urban neighbourhoods of the five cities apply for the areas adjacent to the train station and accessible locations standards in other areas.

Car parking is proposed in relation to distance from the train station in compliance with the Guidelines. Blocks A and B located in the south end of the site have parking ratio of 0.7, while other blocks benefit from parking ratio of 1.3.

2 bed houses have 1 parking space per unit provided while 3+ bed unit have 2 parking spaces per unit.

It is submitted that this proposal is in compliance with the SPPR 3.

SPPR 4 – Cycle Parking and Storage states that:

> *It is a specific planning policy requirement of these Guidelines that all new housing schemes (including mixed-use schemes that include housing) include safe and secure cycle storage facilities to meet the needs of residents and visitors.*

The following requirements for cycle parking and storage are recommended:

(i) Quantity – in the case of residential units that do not have ground level open space or have smaller terraces, a general minimum standard of 1 cycle storage space per bedroom should be applied. Visitor cycle parking should also be provided. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/ enlargement, etc. It will be important to make provision for a mix of bicycle parking types including larger/heavier cargo and electric bikes and for individual lockers.

(ii) Design – cycle storage facilities should be provided in a dedicated facility of permanent construction, within the building footprint or, where not feasible, within an adjacent or adjoining purpose-built structure of permanent construction. Cycle parking areas shall be designed so that cyclists feel safe. It is best practice that either secure cycle cage/compound or preferably locker facilities are provided.

Bicycle parking is proposed at ratio 1 long stay space per bedroom (974 no.) and 1 short stay space per 2 units (262 no.) for apartments and duplexes.

Bicycle parking for the houses with direct access to rear gardens will be provided in-curtilage.

Mid-terrace houses – 650 no. spaces (2 no. long stay spaces per unit plus 4 no. short stay spaces per cell)

36 no. bicycle parking spaces are provided for non-residential elements of the development.

Additional 6 no. cargo bicycle parking spaces 6 no. electric bicycle parking are provided – 2 no. spaces of each located undercroft of each of Blocks A-C.

It is submitted that the proposal for 1634 no. bicycle spaces is in compliance with the Guidelines.

4 key indicators of quality design and placemaking

Furthermore, the Guidelines define 4 key indicators of quality design and placemaking that inform the development:

1. Sustainable and Efficient Movement
2. Mix and Distribution of Uses
3. Green and Blue Infrastructure
4. Responsive Built Form

It is submitted that these criteria have been addressed in the Design Statement prepared by MCORM.

3.2.3 Sustainable Housing: Design Standard for New Apartments (2023)

'*Sustainable Urban Housing: Design Standards for New Apartments (2023)*' are intended to promote sustainable housing, by ensuring that the design and layout of new apartments provide satisfactory accommodation for a variety of household types and sizes, including families with children over the medium to long term.

The following policies and provisions are considered relevant to the current proposal.

Specific Planning Policy Requirement 1

Apartment developments may include up to 50% one-bedroom or studio type units (with no more than 20-25% of the total proposed development as studios) and there shall be no minimum requirement for apartments with three or more bedrooms. Statutory development plans may specify a mix for apartment and other housing developments, but only further to an evidence-based Housing Need and Demand Assessment (HNDA), that has been agreed on an area, county, city or metropolitan area basis and incorporated into the relevant development plan(s).

Applicant Response to SPRR1

The proposed development residential mix is provided below:

- 121 No. 1 Bed Units - 24%
- 318 No. 2 Bed Units - 62%
- 71 No. 3 Bed Units - 14%

It is submitted that the proposed unit mix of apartments is in compliance with the Guidelines.

Specific Planning Policy Requirement 3

Minimum Apartment Floor Areas (Studio apartment (1 person) 37 sq.m; 1-bedroom apartment (2 persons) 45 sq.m; 2-bedroom apartment (4 persons) 73 sq.m and 3-bedroom apartment (5 persons) 90 sq.m)

Applicant Response to SPPR3

The subject proposal will comply and exceed the minimum apartment floor areas set out above.

Specific Planning Policy Requirement 4

"In relation to the minimum number of dual aspect apartments that may be provided in any single apartment scheme, the following shall apply:

(i) A minimum of 33% of dual aspect units will be required in more central and accessible urban locations, where it is necessary to achieve a quality design in response to the subject site characteristics and ensure good street frontage where appropriate.

(ii) In suburban or intermediate locations it is an objective that there shall generally be a minimum of 50% dual aspect apartments in a single scheme.

(iii) For building refurbishment schemes on sites of any size or urban infill schemes on sites of up to 0.25ha , planning authorities may exercise further discretion to consider dual aspect unit provision at a level lower than the 33% minimum outlined above on a case-by-case basis, but subject to the achievement of overall high design quality in other aspects."

Applicant Response to SPPR4

The current proposal delivers 57% dual aspect units. This fully accords with the Apartment Guidelines, which requires a minimum 33% dual aspect in more central and accessible urban locations and 50% for more suburban or intermediate locations.

Specific Planning Policy Requirements 5

"Ground level apartment floor to ceiling heights shall be a minimum of 2.7m and shall be increased in certain circumstances, particularly where necessary to facilitate a future change of use to a commercial use. For building refurbishment schemes on sites of any size or urban infill schemes on sites of up to 0.25ha , planning authorities may exercise discretion on a case-by-case basis, subject to overall design quality."

Applicant Response to SPPR5

The subject proposal ground floor will provide a floor to ceiling heights of 2.7 no. metres in compliance with the above policy requirements at application stage.

Specific Planning Policy Requirements 6

"A maximum of 12 apartments per floor per core may be provided in apartment schemes. This maximum provision may be increased for building refurbishment schemes on sites of any size or urban infill schemes on sites of up to 0.25ha , subject to overall design quality and compliance with building regulations."

Applicant Response to SPPR6

We can confirm that the number of apartment units per core varies and aligns with policy requirements of maximum 12 per core. We refer the competent authority to the floor plans prepared by MCORM enclosed in herewith.

Part V

The Apartment Guidelines set out that Part V requirements under the Planning Act (as amended) apply to Build to Sell developments.

We confirm that the applicant is committed to the delivery of their Part V obligations and agreement has been reached with MCC in this respect. For the purpose of this submission, we can confirm that 20% of the units will be allocated for Part V requirements or 171 no. units for the 853 no. units proposal currently before the Planning Authority as follows:

- 17 no. Houses
- 40 no. Duplexes
- 114 no. Apartments

For further details we refer to the Part V Pack prepared by MCORM.

Childcare Facilities

The applicant, in bringing this development forward is mindful of the relevant thresholds in terms of childcare requirements and has prepared an assessment and proposal for consideration by the Planning Authority.

Sustainable Urban Housing: Design Standards for New Apartments (2023)

The recent publication of the 2023 apartment guidelines outlines the requirement for the provision of one child-care facility for every 75 dwelling units, subject to the proposed development mix and existing local childcare facilities as follows:

> *'4.7: Notwithstanding the Planning Guidelines for Childcare Facilities (2001), in respect of which a review is to be progress, and which recommend the provision of one child-care facility (equivalent to a minimum of 20 child places) for every 75 dwelling units, the threshold for provision of any such facilities in apartment schemes should be established having regard to the scale and unit mix of the proposed development and the existing geographical distribution of childcare facilities and the emerging demographic profile of the area.'*

The Apartment Guidelines (2023) also set out that studio and one-bedroom units should be discounted when calculating demand for childcare that would be generated by the proposed residential development. The guidelines note that this approach may also apply in part to units with two or more bedrooms.

Assessment

As set out above, the recommendation for new housing developments is the provision of 1 facility providing for a minimum 20 childcare places per approximately 75 dwellings. The relevant guidelines state that if it is assumed that 50% of units can be assumed to require childcare in a new housing area of 75 dwellings, approximately 35 will need childcare. Furthermore, it is stated that the threshold for provision of any such facilities in apartment schemes should be established having regard to the scale and unit mix of the proposed development and the existing geographical distribution of childcare facilities and the emerging demographic profile of the area. This assessment has applied this rationale and methodology in estimating demand. In addition, we note that there is clear guidance, to exclude one bedroom or studio type units, which may also apply in part or whole to units with two or more bedrooms.

Within this in mind, the overall development mix is as follows:

- 853 residential units in the form of:
  - 121 no. 1 bed (apartments)
  - 322 no. 2 bed (duplex, apartments & houses)
  - 410 no. 3+ bed (duplex, apartments & houses)

The demand arising based on this mix is identified as follows:

Within the subject proposal, we have identified that there are 571 no. units (50% 2-bedroom units and 3+ bedroom units) that have the potential to require childcare. 20 no. childcare spaces are required per 75 units. Therefore, a crèche is required for 571/75*20=152 children.

Proposed 2 no. creches are considered sufficient to meet any demand arising from the current proposal:

- Southern stand-alone creche – c. 394 sqm
- Northern creche adjacent to Block C – c. 400 sqm

Each creche is proposed with an appropriate outdoor play area.

3.2.4 The Urban Development and Building Height Guidelines for Planning Authorities 2018

The 'Urban Development and Building Heights, Guidelines for Planning Authorities (2018)' are intended to set out national planning policy guidelines on building heights in relation to urban areas. These guidelines are the most recent form of guidance from the Minister on the matter of building height and were formally adopted in December of 2018. The competent authorities are now obliged to consider the content of these guidelines in consideration of the matter of building height.

Section 1.14 of the document sets out the following:

> *"Accordingly, where SPPRs are stated in this document, **they take precedence over any conflicting, policies and objectives of development plans, local area plans and strategic development zone planning schemes.** Where such conflicts arise, such plans/schemes need to be amended by the relevant planning authority to reflect the content and requirements of these guidelines and properly inform the public of the relevant SPPR requirements.*

Policy Context and Specific Planning Policy Requirements

Section 1.1 of the Guidelines discusses aims of the document:

> *"…are intended to set out national planning policy guidelines on building heights in relation to urban areas, as defined by the census, building from the strategic policy framework set out in Project Ireland 2040 and the National Planning Framework."*

It is noted that the subject site is not located in the urban area of Dunboyne as defined by the CSO. Therefore SPPR 4 should apply:

SPPR 4

The subject site is a greenfield site on the edge of a town. Therefore, SPPR 4 is applicable:

> *"It is a specific planning policy requirement that in planning the future development of greenfield or edge of city/town locations for housing purposes, planning authorities must secure:*

> *1. the minimum densities for such locations set out in the Guidelines issued by the Minister under Section 28 of the Planning and Development Act 2000 (as amended), titled "Sustainable Residential Development in Urban Areas (2007)" or any amending or replacement Guidelines;*
>
> *2. a greater mix of building heights and typologies in planning for the future development of suburban locations; and*
>
> *3. avoid mono-type building typologies (e.g. two storey or own-door houses only), particularly, but not exclusively so in any one development of 100 units or more."*

However, even though the urban area definition does not apply to the site, its strategic location on zoned lands adjacent to Dunboyne Train Station should be considered. From the outset, it is noted that the Building Height Guidelines (2018) expressly seek to increase building heights at appropriate urban locations and adjacent to key public transport corridors. This approach is also confirmed by the Development Plan where the area adjacent to the station is included in a list of development areas where increased building height is required. The site is therefore considered a prime opportunity for increased building height.

SPPR 1

The Urban Development and Building Heights Guidelines 2018 SPPR 1 discusses locations with good public transport accessibility:

> *SPPR 1: "In accordance with Government policy to support increased building height and density in locations with good public transport accessibility, particularly town/ city cores, planning authorities shall explicitly identify, through their statutory plans, areas where increased building height will be actively pursued for both redevelopment, regeneration and infill development to secure the objectives of the National Planning Framework and Regional Spatial and Economic Strategies and shall not provide for blanket numerical limitations on building height."*

The Meath County Development Plan in Section 11.5.9 Building Heights set the following objective:

DM OBJ 25: To require development with increased building height at the following locations:

> ***Dunboyne Central rail station***
> *Pace Rail Station*
> *Maynooth Environs*
> *Drogheda Environs*
> *Navan*

It is submitted that increased height in this location is supported by SPPR 1 of The Urban Development and Building Heights Guidelines 2018.

SPPR 2

"In driving general increases in building heights, planning authorities shall also ensure appropriate mixtures of uses, such as housing and commercial or employment development, are provided for in statutory plan policy. Mechanisms such as block delivery sequencing in statutory plans could be utilised to link the provision of new office and residential accommodation, thereby enabling urban redevelopment to proceed in a way that comprehensively meets contemporary economic and social needs, such as for housing, offices, social and community infrastructure, including leisure facilities."

As a summary point, the new Guidelines now require that Planning Authorities critically evaluate the existing written statements and development objectives of their statutory plans, local area plans and planning schemes for consistency of approach and where any policy departures arise, to undertake the necessary reviews, variations or amendments to ensure proper alignment of national and local planning policies. The subject proposal for a mix of uses with a primarily residential theme at the subject site is therefore appropriate in the context of the above and in the context of the Meath County Development Plan 2021-2027.

There are other, related policy requirements in relation to compact and sustainable development in accessible locations contained in the Building Height Guidelines that promote the subject site as a suitable location for large scale, high density development.

SPPR 3

SPPR 3A of the Urban Development and Building Heights Guidelines 2018 requires applicants for planning permission to set out how the proposal complies with the "*criteria above*". This refers to the Development Management criteria at Section 3.2 of the Guidelines, which are discussed below.
If the Board is satisfied that the criteria under section 3.2 have been met, it "*may approve such a development, even where specific objectives of the relevant development plan or local area plan may indicate otherwise*". The paragraph introducing SPPR 3 itself is set out below for ease of reference, following which, each of the criteria (denoted by italics) are considered in turn:

> "*Where the relevant planning authority or An Bord Pleanála considers that such criteria are appropriately incorporated into development proposals, the relevant authority shall apply the following Strategic Planning Policy Requirement under Section 28 (1C) of the Planning and Development Act 2000 (as amended).*

The performance of the proposal vis a vis the building height criteria is further assessed below in sub-section 'Development Management Criteria'. The consistency of the proposal with the National Planning Framework has been considered above.

There is a wide range of heights and typologies proposed for the subject site:

Block A - 1 - 6 storeys

Block B – 1 - 6 storeys

Block C – 1 – 6 storeys

Duplexes - 2 - 4 storeys

Houses – 1 – 3 storeys

Compliance with the Sustainable Residential Development and Compact Settlements Guidelines replacing Sustainable Residential Development in Urban Areas (2009) Guidelines are discussed in Section 7.2 of the Planning Report.

The Guidelines state that *in relation to the assessment of individual planning applications and appeals, it is Government policy that* ***building heights must be generally increased in appropriate urban locations. There is therefore a presumption in favour of buildings of increased height in our town/city cores and in other urban locations with good public transport accessibility. Planning authorities must apply the following broad principles in considering development proposals for buildings taller than prevailing building heights in urban areas in pursuit of these guidelines:***

- *Does the proposal positively assist in securing National Planning Framework objectives of focusing development in key urban centres and in particular, fulfilling targets related to brownfield, infill development and in particular, effectively supporting the National Strategic Objective to deliver compact growth in our urban centres?*

- *Is the proposal in line with the requirements of the development plan in force and which plan has taken clear account of the requirements set out in Chapter 2 of these guidelines?*
- *Where the relevant development plan or local area plan pre-dates these guidelines, can it be demonstrated that implementation of the pre-existing policies and objectives of the relevant plan or planning scheme does not align with and support the objectives and policies of the National Planning Framework?*

As a response to the above criteria, we note the following:

- As set out in preceding sections, the proposal secures the relevant objectives of the National Planning Framework. The location of the proposed development is on a zoned greenfield site and is considered a unique opportunity for the delivery of strategic housing.
- As set out in preceding sections, the proposal complies with both, the Meath County Development Plan and the Guidelines.

Development Management Criteria

The Guidelines clearly set out that in the event of making a planning application, the applicant shall demonstrate to the satisfaction of the Planning Authority/An Bord Pleanála, that the proposed development satisfies a number of criteria. A response to the relevant criteria from the guidelines is set out in brief below:

At the scale of the relevant city/town:

- As stated previously, the site is well served by public transport with the site located adjacent to the Dunboyne Train Station with services to Dublin Docklands, M3 Parkway and Longford with frequency of 15 services per working day operating on M3 Parkway – Dunboyne – Clonsilla – Broombridge – Docklands / Connolly (Dublin). Furthermore, this train line is proposed for an upgrade within DART+ programme.
- Furthermore, there are several bus services available on Station Road with a nearest bus stop located within 1 min walk from the proposed southern end of the subject site. For further details on bus services their frequency as well as on BusConnects proposal, we refer to Section 3 of the Planning Report.
- The proposal is not located within an architecturally sensitive area nor is there a requirement to protect views across this site. The proposed southern end with height up to 6 storeys creates a focal point and acts as gateway to Dunboyne town.
- We note also that the benefits offered by the proposal to the public realm have identified a new network of streets, variety of open spaces, a coffee shop and retail units, and significantly improved active frontage along Station Road. Therefore, it is submitted that the proposed development is considered to make a positive contribution in terms of place-making in wider context.
- A Landscape and Visual Impact Assessment prepared by Ait forms a part of an EIAR accompanying this application.
- The increased height on the site adjoining the train station will add a visual interest and form a gateway to the town. The subject development will contribute towards place-making by enhancement of character of surrounding areas.

- Generous size of the site allows for creating a network of new streets and usable open spaces of various characters; from urban plazas, kick-about open spaces, active open spaces to smaller pocket parks.
- We refer to the Architectural and Urban Design Statement prepared by MCORM for details of design quality.
- In the southern blocks, the proposed scheme presents in a series of new residential blocks which are focused on placemaking and a central area of open space. There is sufficient variety in scale and form of the blocks through the use in variety of building layouts, sizes and heights. Care has been given at height sensitive areas (along boundaries with residential buildings to the east, as well as 3 storey buildings of Castlefarm Development on the southern side of Station Road) to ensure there is no undue impact on established levels of residential amenity adjoining the site.

At the scale of district/ neighbourhood/ street:

- The proposal responds to the natural and built environment for the reasons set out under the response to 'at the scale of the relevant city/town' above. Careful consideration has been given to the proposal regarding how it addresses the existing surrounding development and local topography. The high-quality design submitted provides an appropriate transition between the neighbouring sites, through the delivery of up to 6 storey height to the south and 5 storeys to the north. 4 storey duplexes enhance urban frontage along the distributor road with a transition to 1-2 storeys on the inner west side of the development.
- Careful consideration has been given to ensure that a monolithic appearance is avoided. This is apparent from the design rationale submitted, which clearly sets out that several options were considered in design.
- As set out above, the proposal offers significant enhancement to the local public realm by way of a new pedestrian connections, a new residential amenity space, new play areas, and carefully designed frontage along streets and open spaces. There are no inland waterway or marine frontage within the current proposal. We refer to the material from JBA included herewith which provides for comment on flood risk.
- Legibility through the site is delivered by way of a comprehensive landscape plan and specifically a series of permeable connections through the site and quality areas of open space.
- An appropriate mix of unit types and sizes are incorporated into the development proposal. Notably, A residential mix of 121 x 1 beds, 322 x 2 beds and 410 x 3+ beds is proposed. In addition, we note that the proposal offers a significant residential amenity offering by way of an extensive residential amenity space across the site.

At the scale of the site/building:

- The Daylight & Sunlight Assessments prepared by Digital Dimensions, enclosed herewith, confirms that there are acceptable levels of access to natural daylight and sunlight.
- There is no requirement for compensatory design solutions.

Specific Assessments:

The guidelines set out that in order to support proposals at some or all of these scales, specific assessments may be required. We note the following points for the Planning Authority at this time:

- Given the modest heights of 1 to 6 storeys and the design of building, we do not foresee any impact on wind nor microclimate.
- A noise assessment, incorporating inward noise, was conducted by Wave Dynamics and forms a part of an EIAR Chapter 10 accompanying this application.
- Potential impacts on birds/ bats has been addressed by Enviroguide in an EIAR Chapter 8 Biodiversity.
- We confirm that an Appropriate Assessment Screening Report prepared by Enviroguide and an Environmental Impact Assessment Report compiled by Brock McClure accompany this planning application
- We confirm that Telecommunications Assessment forms a part of this application with the conclusion that in reviewing the mobile phone network, relative to the site location, size of the apartment blocks and other adjacent masts to the south east in Clonee the proposed development will not impact on the operation of these masts.
- It is not anticipated that buildings up to 6 storeys will have any bearing on air navigation.
- A Design Statement has been prepared by MCORM and is enclosed herewith. This statement addresses the site context and proposed design in urban design terms and sets out in clear detail the design rationale for the current proposal submitted.
- An EIAR has been prepared for the site and forms a part of the planning application pack.
- Daylight, Sunlight and Overshadowing Assessment prepared by Digital Dimensions concludes that the scheme performs well on these parameters which in turn supports the height, scale and massing of the development as currently proposed.

Based on the initial foregoing analysis, the proposed development meets the specific performance criteria under Section 3.2 of the Guidelines and is in compliance with the key SPPRs and development criteria requirements.

3.3 Meath County Development Plan 2021-2027

The Meath County Development Plan 2021 – 2027 is the relevant statutory planning document in place for county Meath. The Development Plan policies in relation to the subject proposal are outlined below.

3.3.1 Zoning

The key provisions of the Plan and the compliance of the proposed development with same are set out in brief below.

The County Development Plan 2021-2027 is the current statutory planning context for the site. Dunboyne is identified as a *'self-sustaining growth town'* and under this plan, the majority of the site is zoned ***A2 - New Residential*** *development with* a stated objective to *"provide for new residential communities with ancillary community facilities, neighbourhood facilities as considered appropriate."*

Guidance:

'Whilst residential zoned lands are primarily intended for residential accommodation, these lands may also include other uses that would support the establishment of residential communities. This could include community, recreational and local shopping facilities.

These facilities must be at an appropriate scale and cannot interfere with the primary residential use of the land. The detail of ancillary uses to be provided as part of a residential development shall form part of pre-application discussions in respect of any planning proposal unless otherwise indicated in Volume 2 of the Development Plan.

Individual convenience stores in neighbourhood centres on A2 zoned lands should generally not exceed 1,000m² net retail floorspace unless otherwise identified in a Local Area Plan.'

Permitted Uses: ***Residential*** */ Sheltered Housing, B & B / Guest House, Bring Banks,* ***Community Facility*** */ Centre,* ***Childcare Facility****, Convenience Outlet, Children Play / Adventure Centre, Education (Primary or Second Level), Halting Site / Group Housing, Home Based Economic Activities, Leisure / Recreation / Sports Facilities, Retirement Home / Residential Institution / Retirement Village, Utilities.*

Open for Consideration Uses: Betting Office, Caravan Park, Cultural Facility, Education (Third Level), Enterprise Centre, Health Centre, ***Healthcare Practitioner****, Hotel / Motel / Hostel, Offices <100m (not for visiting members of the public), Place of Public Worship, Bar/ Restaurant / Café, Take-Away / Fast Food Outlet, Veterinary Surgery.*
The proposal accommodates residential units, community facility, healthcare practitioner, café and childcare facilities which are included in permitted uses or uses open for consideration. It is submitted that the proposed retail units do not exceed 1,000m² net retail floorspace.

Furthermore, smaller segments of the subject site are zoned as A1 – Existing Residential, F1 - Open Space, G1 – Community Infrastructure, TU – Transport and Utilities and RU – Rural area.

A1 - Existing Residential zoning governs the former Mill Farm Cottage site which was demolished recently under planning permission Reg. Ref. 212395. The objective for this zoning is defined as *"To protect and enhance the amenity and character of existing residential communities".*

Permitted Uses: ***Residential****, Sheltered Housing, B & B / Guest House, Community Facility / Centre, Home Based Economic Activities, Utilities.*

Open for Consideration Uses: Bring Banks, ***Convenience Outlet****, Childcare Facility, Halting Site, Healthcare Practitioner, Leisure / Recreation / Sports Facilities, Bar, Retirement Home / Residential Institution / Retirement Village, and Veterinary Surgery*

Besides the residential use and 2 no. retail units (217 sqm and 170 sqm) proposed on lands zoned A1, the subject development delivers also a café. Residential use is permitted. Convenience outlet is open for consideration.

It is noted that convenience outlet is defined as *"a single level store selling food and other convenience items with a net sales area of not more than 200m²".* It is noted that one of retail units slightly exceeds this limit.
While café is not listed in the permissible nor open for consideration uses, it is submitted that is ancillary to the zoning objective.

The A1 zoned part of the subject site is strategically located adjacent to the Dunboyne Station and has a potential to accommodate non-residential use on the ground floor. A proposed cafe and 2 retail units will activate frontage in this high traffic area.

Furthermore, the nature of this area zoned A1 - a demolished single house not surrounded by other existing residential units should be consider.

Therefore, we are asking the Planning Authority to consider compliance with zoning on its own merit in accordance with the development plan:

> *"Any use not listed in the permissible or open for consideration categories is deemed not to be acceptable in principle. Such uses will be considered on their individual merits and will only be permitted if they enhance, complement, are ancillary to, or neutral to the zoning objective."*

F1 – Open Space – there is a portion of the site to the east zoned as F1 – Open Space. The majority of this part of lands is proposed for temporary areas to facilitate construction phase and for surface water drainage. It is submitted that proposed uses do not contravene with F1 zoning objectives:

Permitted Uses: Car Park for Recreational Purposes, Craft Centre / Craft Shop, Community Facility / Centre, Cultural Facility, Cycleways / Greenways / Trail Development, Leisure / Recreation / Sports Facilities, Playing Pitches, Playgrounds, ***Utilities****.*

G1 – Community Infrastructure – there is a small portion of the subject site overlapping with this zoning, namely a proposed access to the LMETB lands, a portion of public open space adjacent to Block B and engineering connections. It is submitted that there is a sufficient zoned land reserved for future educational facility and the current proposal does not contravene objectives for G1 zoning.
Furthermore, it is noted that a portion of public open space proposed on G1 zoned lands has been discounted from public open space provision.

TU - Transport and Utilities zoning governs the existing Dunboyne Station access road. This access road is intended to be re-routed, connecting Station Road with the station via the Eastern Distributor Road. Phasing of the construction ensures that the access to the Station is maintained at any stage. It is submitted that the subject proposal does not contravene zoning of the Development Plan materially. Therefore, we are asking the Planning Authority to consider compliance with zoning in these merits.

RU – Rural area – 2no. roundabouts proposed for an upgrade are located within Rural Area zoning. It is submitted that the merit of these works do not contradict with objectives of this zoning.

Besides main residential use also following uses are proposed:

- Childcare facilities – located at lands zoned A2 (listed as permitted use within A2 zoning in the Development Plan)
- Retail unit – located at lands zoned A1, A2 and TU (not explicitly listed as permitted neither open for consideration within A1)
- Medical unit - located at lands zoned A1 (listed as open for consideration within A1)
- Café – located at lands zoned A1 (not explicitly listed as permitted neither open for consideration within A1)
- Community facility - located at lands zoned A2 (listed as permitted within A2)

The site is also subject to a Development Plan objective to provide for new road infrastructure which directly traverses the site from south to north, on eastern edge. The subject proposal includes a portion of the distributor road from Station Road to the bridge embankments.

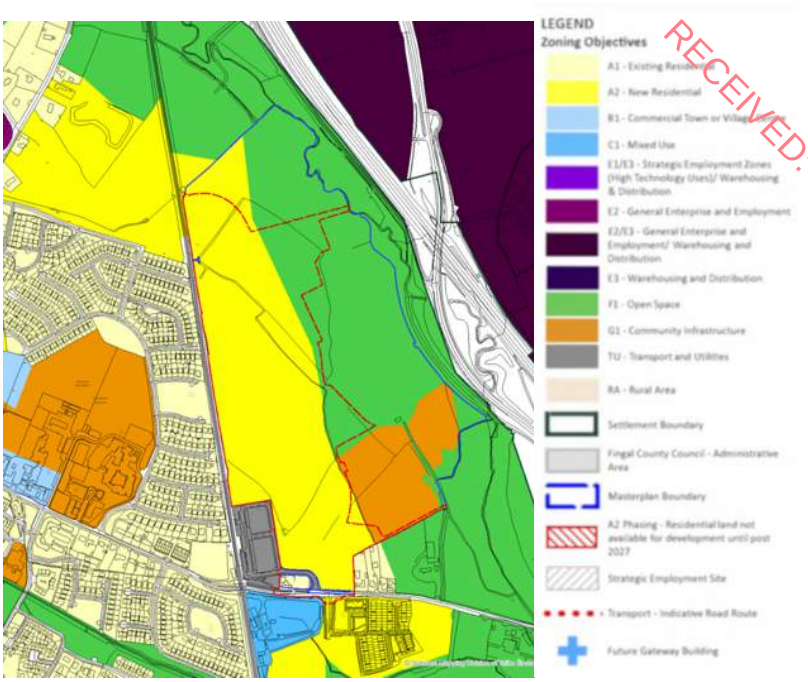


Figure 3.4 - Land Use Zoning (extract from Meath County Development Plan) – subject site outlined in red

3.3.2 Core Strategy and Key Objectives

Core Strategy of the Meath Development Plan sets household allocation 2020-20272 for Dunboyne as 2,002 units to accommodate for projected population 2027 of 10,572. Dunboyne is defined as a self-sustaining growth town. Census 2022 shown that Dunboyne population did not grow in 2016-2022 period.

Self Sustaining Growth Towns are settlements that have a solid employment base and a broad range of services and have the capacity to accommodate additional growth on a sustainable platform.

Dunboyne is a strategically important settlement in Meath. It is an important centre for economic growth in the County due to its location in the Dublin Metropolitan Area and along a multi-modal corridor. The town has enjoyed recent successes in attracting inward investment. It is an objective of this Plan to continue to attract high-quality investment to the town. In addition, there is capacity for the town to accommodate significant population growth, with strategically located lands zoned for residential use in proximity to the rail stations available for development. Therefore, a rapid growth of the town is expected.

<u>Settlement Strategy Objective</u>

SH OBJ 9 *"To develop Navan and the Southern Environs of Drogheda as the primary development centres in Meath and to continue to promote Dunboyne as a key settlement in the Metropolitan Area of Dublin. The long-term growth of these settlements shall be based on principles of balanced and sustainable development that support a compact urban form and the integration of land use and transport."*

It is submitted that the subject proposal contributes significantly towards meeting targets set by the Development Plan on appropriately zoned land.

Dunboyne/ Clonee/ Pace form separate section of Volume 2 Written Statement and Maps for Settlements.

Land Use Strategy:

> *"The strategic location of Dunboyne and Clonee along a multi-modal road and rail corridor in the Dublin Metropolitan Area makes the area well positioned to accommodate significant population growth and economic investment.*
>
> *The Development Strategy for the area is to build on recent economic successes and to continue to promote the area as a location of choice for high tech, pharmaceutical, logistics, warehousing, and other employment generating uses. An integrated approach will be taken to transport and land use policy in the area. This will ensure that future investment will be concentrated on strategic employment and residential lands along the M3 Parkway Commuter rail line.*
>
> *Residential growth will also be focused on centrally located lands in proximity to the rail stations in the town. There are additional strategic sites that have been identified for residential uses however they will not be available for development until after 2026. The identification of these lands provides clarity and direction with regard to the long term growth strategy of this Metropolitan settlement."*

There are following objectives set in this section are particularly relevant to residential development on the subject site:

DCE OBJ 5 *"To prioritise the delivery of residential development on the residentially zoned lands adjacent to Dunboyne Rail Station and Dunboyne North."*

DCE OBJ 18 *"To support the delivery, in conjunction with all relevant stakeholders, of a link road on the lands zoned for new residential development to the east and north east of Dunboyne."*

DCE OBJ 22 *"To support and facilitate the delivery of the transport infrastructure and measures set out in the Dunboyne and Environs Transportation Study."*

Applicant's Response

Residential development to the east and north of Dunboyne is specifically referenced within objectives of the Meath County Development Plan. The proposed development is in accordance with the above requirements for sustainable residential development. The proposal site is located in close proximity to Dunboyne town centre and has access to various modes of public transport including the Dunboyne Railway Station which provides access to Dublin City Centre.

As highlighted in the above, the site is well located in terms of community infrastructure and educational facilities serving Dunboyne, all of which are within walking distance of the subject site. The proposed development also includes the provision of a coffee shop, retail unit, medical unit and community facility to serve its future residents as well as train station users. 2 childcare facilities are proposed to cover needs of the population of the development.

3.3.3 Retail Strategy

A café (196 sqm) and 2 no. retail unit (217 sqm and 170 sqm) form a part of the development. They are strategically located to the southwest of the development on the ground floor of Block A. Along with a proposed medical unit (197 sqm) and a community facility (52 sqm) they activate urban frontage along Station Road and contribute to passive surveillance.

The provision of retail floor space was carefully considered so as not to detract from the core retail areas while creating a viable neighbourhood centre with a potential to also serve rail commuters.

It is submitted that the subject proposal is compliant with the following policies:

ED POL 30 *"To implement the Meath County Retail Strategy 2020-2026."*

ED POL 36 *"To adhere to the Sequential Approach principle in the consideration of retail applications located outside of core retail areas."*

ED POL 39 *"To encourage a healthy diversity of retail types and scales, as well as uses that are complementary to retail, in particular leisure uses, within all Core Retail Areas."*

Applicant's Response

Dunboyne is defined as secondary economic growth town. It has a low level of vacancy within the town centre compared to other towns within County Meath with only 5.12% of the total units covered by the land use survey of town centre units being identified as vacant what is considered to be a natural level of vacancy in terms of town centre health. The subject site is not identified as a core retail area nor an opportunity site. Due to a nature of proposed retail units it is not expected that they will detract from the town centre. They will rather form a local neighbour centre primarily used by local residents and commuters.

3.3.4 Development Density

As mentioned previously the Sustainable and Compact Settlements Guidelines will govern the site in terms of defining an appropriate density, housing standards and quality design and placemaking to support sustainable and compact growth.

The Meath County Council Development Plan 2021-2027 specifies required densities for Self-Sustaining Growth Towns and sets particular requirements for residential development beside a rail station as follows:

SH OBJ 22 **"***To require that, where relevant, all new residential developments shall be in accordance with SSPR 1 to SPPR 4 of the Urban Development and Building Heights Guidelines for Planning Authorities, December 2018 as well as SPPR 1 to SPPR 9 of the Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, March 2018. All new residential development should comply with the densities outlined in Chapter 11 of this plan."*

DM OBJ 14 **"***The following densities shall be encouraged when considering planning applications for residential development:*

- *Residential Development Beside Rail Stations:* ***50 uph or above***
- *Self-Sustaining Growth Towns: (Dunboyne, Ashbourne, Trim, Kells): greater than 35uph"*

SH POL 9 *"To promote higher residential densities in appropriate locations and in particular close to town centres and along public transport corridors, in accordance with the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas, DEHLG (2009)."*

Applicant's Response

A residential density of **55.3 units per hectare** is proposed. This is based on the full extent of the net developable site area of 15.74 ha and a proposal for 853 residential units. This

proposal aligns with the above policy in that the proposal provides for a residential development beside Dunboyne Station.

We note that the appropriate residential density for this site has been formulated within the context of the Sustainable Residential Development and Compact Settlements Guidelines (2024) and specifically Policy and Objective 3.1 which the Planning Authority is obliged to have regard to in assessment of the matter of residential density for this site. Section 2.2 of the Planning Report refers.

3.3.5 Plot Ratio and Site Coverage

Meath Development Plan 2021-2027 sets out the following objectives:

DM OBJ 15 *"As a general rule, the indicative maximum plot ratio standard shall be 1.0 for housing at edge of town locations with an indicative maximum plot ratio of 2.0 in town centre/core locations."*

Applicant's Response

The proposed plot ratio is 0.58 which is in compliance with requirements of the Development Plan.

DM OBJ 16 *"Site coverage shall generally not exceed 80%. Higher site coverage may be permissible in certain limited circumstances such as adjacent to public transport corridors; to facilitate areas identified for regeneration purposes; and areas where an appropriate mix of both residential and commercial uses is proposed."*

Applicant's Response

The proposed site coverage is 28% which is in compliance with requirements of the Development Plan.

3.3.6 Building Line

Meath Development Plan 2021-2027 sets out the following objective:

DM OBJ 17 *"To seek to provide building setbacks along Motorways, National Primary, National Secondary, Regional and Local Roads to allow for future road improvements."*

Applicant's Response

It is submitted that the site layout has been designed in accordance with this objective and the building line of Block A and B is set back from Station Road.

3.3.7 Separation Distances

Meath Development Plan 2021-2027 sets out the following objective:

DM OBJ 18 *"A minimum of 22 metres separation between directly opposing rear windows at first floor level in the case of detached, semi- detached, terraced units shall generally be observed."*

DM OBJ 19 *"A minimum of 22 metres separation distance between opposing windows will apply in the case of apartments/duplex units up to three storeys in height. "*

DM OBJ 20 *"Any residential development proposal which exceeds three or more storeys in height shall demonstrate adequate separation distances having*

regard to layout, size and design between blocks to ensure privacy and protection of residential amenity.

DM OBJ 21: *"A minimum distance of 2.3 metres shall be provided between dwellings for the full length of the flanks in all developments of detached, semi-detached and end of terrace houses."*

Applicant's Response

The Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities SPPR1 outlines the guideline regarding Separation Distances shall be applied in the consideration of planning applications. It is submitted that the minimum separation distances have been adhered to across the proposed scheme. For more details we refer to Section 7.2 of the Planning Report.

3.3.8 Housing Mix

Meath Development Plan 2021-2027 sets out the following objective:

DM POL 6 *'To require that the unit typologies proposed provide a sufficient unit mix which addresses wider demographic and household formation trends. The design statement required at DM OBJ 13 shall set out how the proposed scheme is compliant with same. '*

Applicant's Response

The proposed unit mix will be appropriate to the site and provides for an extensive mix of unit types near Dunboyne Rail Station and in walking proximity to Dunboyne Town Centre.

Residential mix of apartments, duplexes, and houses are proposed as follows:

- 1-bed 14% (apartments)
- 2-bed 38% (duplex, apartments & houses)
- 3-bed 44% (duplex, apartments & houses)
- 4-bed 4% (houses)

In response to this objective data on household size in the County Meath and Dunboyne Electoral Division were analysed:

2022 Census Data - Total Population in Meath

Population	Male	%	Female	%
220,826	109,988	49.8%	110,838	50.2%

2022 Census Data - Household Sizes and Average Sizes

Household	Units (no.)	Units (%)	Persons (no.	Persons (%)
1 Person	12,631	17.3%	12,631	5.7%
2 Persons	18,941	26.0%	37,882	17.2%
3 Persons	13,712	18.8%	41,136	18.7%
4 Persons	15,397	21.1%	61,588	28.0%
5 Persons	8,545	11.7%	42,725	19.4%
6 Persons	2,726	3.7%	16,356	7.4%
7 Persons	694	1.0%	4,858	2.2%
8 or More Persons	331	0.5%	2,866	1.3%
Total Households	72,977	100.0%	220,042	100.0%
Average Household Size			**3**	

2022 Census Data - Number of Household Rooms

Rooms per Unit	Units	Units (%)	Persons (no.	Persons (%)
1 Room	144	0.2%	253	0.1%
2 Room	1,549	2.1%	2,623	1.2%
3 Room	4,325	6.0%	9,530	4.3%
4 Room	6,294	8.7%	15,070	6.9%
5 Room	16,769	23.1%	47,617	21.7%
6 Room	14,872	20.5%	45,919	20.9%
7 Room	11,665	16.1%	38,644	17.6%
8 or More Rooms	15,339	21.1%	55,117	25.1%
Not Stated	1,592	2.2%	4,476	2.0%
Total	72,549	100.0%	219,249	100.0%

2022 Census Data - Total Population in Dunboyne ED

Population	Male	%	Female	%
10,698	5,353	50.0%	5,345	50.0%

2022 Census Data - Household Sizes and Average Size

Household	Units	Units (%)	Persons	Persons (%)
1 Person	528	15.4%	528	4.9%
2 Persons	872	25.4%	1,744	16.3%
3 Persons	638	18.6%	1,914	17.9%
4 Persons	773	22.5%	3,092	28.9%
5 Persons	409	11.9%	2,045	19.1%
6 Persons	151	4.4%	906	8.5%
7 Persons	38	1.1%	266	2.5%
8 or More Persons	25	0.7%	216	2.0%
Total Households	3,434	100.0%	10,711	100.0%
Average Household Size			**3**	

2022 Census Data - Number of Household Rooms

Rooms per Unit	Units	Units (%)	Persons (no.	Persons (%)
1 Room	4	0.1%	9	0.1%
2 Room	103	3.0%	211	2.0%
3 Room	311	9.1%	753	7.0%
4 Room	300	8.7%	770	7.2%
5 Room	602	17.5%	1,763	16.5%
6 Room	572	16.7%	1,802	16.8%
7 Room	598	17.4%	2,011	18.8%
8 or More Rooms	869	25.3%	3,199	29.9%
Not Stated	73	2.1%	190	1.8%
Total	3,432	100.0%	10,708	100.0%

Table 3.5 – Household size Census 2022 (source: cso.ie)

As shown above average household size in both, County Meath and Dunboyne Electoral Division is 3 what exceeds the national average of 2.74. From comparisons above, Dunboyne has slightly higher percentage of bigger households than the County when number of persons per household is considered.
Furthermore, rooms per unit were analysed. Units with 5 and more rooms are prevailing on both, county and electoral division level, while within the electoral division provision of smaller units (1-3 rooms) is slightly higher than within the county.

It is submitted that the proposed development provides for 1-4 bed units which is considered a balanced offer responding to existing housing stock in the County Meath and Dunboyne.

The proposed unit mix is also in compliance with requirements as outlined in the Design Standards for New Apartments Guidelines as outlined in Section 7.3 of the Planning Report.

3.3.9 Dwelling Design

DM OBJ 22 *"The design of any housing scheme shall have regard to the requirement for connectivity between residential areas, community facilities etc. The design of any walkways, lanes or paths connecting housing estates or within housing estates shall be of sufficient width to allow for the safe movement of pedestrians and cyclists. They shall be adequately overlooked and lit and not be excessive in length."*

Applicant's Response

It is submitted that the subject development has been informed by desire lines for pedestrian and cycling movement both, across the site and within the site. The proposal allows for maximum permeability and safe movement of more vulnerable road users. DMURS principles have been applied. A Road safety audit forms a part of this application.

DM OBJ 23 *"To require that all applications for residential development shall be accompanied by a detailed phasing plan which demonstrates the early delivery of key infrastructure associated with that scheme."*

Applicant's Response

Construction of the overall development will be delivered in 4 phases. We refer to Section 5.4 of the Planning Report for details on Phasing.

DM OBJ 24 *"To require the provision of EV charging points to serve residential development."*

Applicant's Response

20% of overall provision of wiring & ducting for future EV charging points will be provided, 8 fully functional EV charging points provided for ca parking spaces for non-residential uses.

3.3.10 Building Height

The Meath Development Plan 2021-2027 sets out the following objective:

DM OBJ 25 *"To require development with increased building height at the following locations;*

- ***Dunboyne Central rail station***
- *Pace Rail Station*
- *Maynooth Environs*
- *Drogheda Environs*
- *Navan"*

Applicant's Response

All proposals for buildings in excess of 6 storeys at these locations shall be accompanied by a statement demonstrating compliance with the Urban Development and Building Heights, Guidelines for Planning Authorities (2018), or any updates thereof.

Sustainable Urban Housing: Design Standards for New Apartments

Section 2.23 and 2.24 of the Design Guidelines is noted in relation to building height. The following is stated:

> *"2.23 The National Planning Framework signals a move away from rigidly applied, blanket planning standards in relation to building design, in favour of performance based standards to ensure well-designed high quality outcomes. In particular, general blanket restrictions on building height or building separation distance that may be specified in development plans, should be replaced by performance criteria, appropriate to location.*
>
> *2.24 While it would not be appropriate for these Guidelines to indicate performance criteria for building height or building separation distance relative to location, it is recognised that there is a need for greater flexibility in order to achieve significantly increased apartment development in Ireland's cities. This will be subject to separate guidance to planning authorities with regard to the different types of location set out above and in the context of an approved National Planning Framework."*

Applicant's Response

Heights of 1-6 storeys are proposed on the subject lands, with the taller elements of the scheme located at entrances to the subject site from surrounding lands to the north and

south. The proposed height varies across the site with the maximum height of 6 storeys in the area adjacent to the Dunboyne Train Station.

For detailed compliance with The Urban Development and Building Height Guidelines (2018) we refer to Section 7.4 of the Planning Report.

3.3.11 Residential Open Space

Private Open Space

The Meath Development Plan 2021-2027 states that houses shall be provided with private open space of minimum area as follows:

- 1-2 beds – 55 sq m
- 3 beds 60 sq m
- 4+ beds 75 sq m

Applicant's Response

Private open space for houses is defined in SPPR2 of the Sustainable Residential Development and Compact Settlement Guidelines 2024 which set a predominant context. It is submitted that the subject proposal meets with and exceeds requirements of the Guidelines as detailed in the Housing Quality Assessment prepared by MCORM. All terraces and balconies serving the apartment and duplex units will be designed to meet and exceed private open space standards set out in the Design Standards for New Apartments, 2023.

Public Open Space

DM OBJ 26 *'Public open space shall be provided for residential development at a minimum rate of 15% of total site area. In all cases lands zoned F1 Open Space, G1 Community Infrastructure and H1 High Amenity cannot be included as part of the 15%. Each residential development proposal shall be accompanied by a statement setting out how the scheme complies with this requirement.'*

Applicant's Response

The developable area of the subject site is c 15.74 hectares. The public open space provided amounts to 2.39 ha which equates to 15.2% of the net site (developable) area. Public open space proposed at lads zoned G1 Community Infrastructure was excluded from calculations. The overall vision for the open space areas provided is to create high quality and useable open spaces that are attractive to people of all ages and offer a variety of uses and functions.

Communal Open Space

In addition to public open space, Sustainable Urban Housing: Design Standards for New Apartments (2023), Section 4.10 states the following with regard to communal amenity space for apartments and duplexes:

> *'The provision and proper future maintenance of well-designed communal amenity space is critical in meeting the amenity needs of residents. In particular, accessible, secure and usable outdoor space is a high priority for families with young children and for less mobile older people. The minimum required areas for public communal amenity space are set out in the Appendix. Whilst a private and communal amenity space may adjoin each other, there should generally be a clear distinction with an appropriate boundary treatment and/or a 'privacy strip' between the two.'*

The minimum floor areas for communal open space as set out in the appendix are as

follows:

- One bedroom: 5sqm
- Two bedrooms (3-person): 6 sq m
- Two bedrooms (4-person): 7 sq m
- Three bedrooms (5 persons): 9 sq m

The following areas of communal open space are required by the subject proposal:

	Required	Provided
Block A	920 sqm	1500 sqm
Block B	912 sqm	1250 sqm
Block C	750 sqm	2200 sqm
Block D	224 sqm	245 sqm
Block E	284 sqm	334 sqm
Block F&G	220 sqm	250 sqm
Block H	160 sqm	500 sqm
Total	3470 sqm	**6279 sqm**

Table 3.6 - Proposed Communal Open Space

The subject proposal provides a total of 6,279 sq m of high-quality landscaped amenity space for residents of apartments and duplexes what is in excess of by Apartment Design Guideline standards. This quantum of open space is achieved while maintaining appropriate density levels for this well-located site.

3.3.12 Boundary Treatment

DM POL 8 *"To require the provision of high quality, durable, appropriately designed and secure boundary treatments in all developments."*

DM POL 9 *"To support the retention of field boundaries for their ecological/habitat significance, as demonstrated by a suitably qualified professional. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, mitigation by provision of the same boundary type will be required."*

DM OBJ 28 *"To require that boundaries between the rear of existing and proposed dwellings shall be a minimum of 1.8 metres high and shall be constructed as capped, rendered concrete block or brick walls, to ensure privacy, security and permanency. Alternative durable materials will be considered."*

DM OBJ 29 *"To require that all rear boundaries within the development shall be a minimum of 1.8 metres high and shall be constructed as capped, rendered concrete block or brick walls, to ensure privacy, security and permanency. Alternative durable materials will be considered."*

DM OBJ 31 *"In the case of residential development where the layout does not provide for front boundaries, there will be a general prohibition against the erection of front boundaries."*

DM OBJ 32 *"To encourage the use of measures specifically designed to enhance wildlife in residential schemes such as gaps/holes, should be considered and incorporated into boundary treatments to allow for passage of all wildlife including hedgehogs, bat boxes and swift bricks/boxes."*

Applicant's Response

It is submitted that boundary treatment plan prepared by KFLA forms a part of this planning application. It considers requirements of the Development Plan with a particular focus on the most sensitive areas along the railway line, station car park and adjoining residential development. For more details we refer to drawings Boundary Treatment Northern Sections and Boundary Treatment Southern Sections prepared by KFLA.

3.3.13 Art Work

DM OBJ 38 *"All proposals for residential developments above 75 units shall incorporate works of public art into the overall scheme or make a financial contribution to the Council to provide the piece of public art in order to enhance the amenities of the local environment."*

Applicant's Response

Art work is proposed to be located in the Open Space Area 1 which has a form of an urban plaza and forms a part of the Gateway Hub. Details of any public artwork proposed will be agreed between the applicant and Meath County Council post planning.

3.3.14 Sunlight/ Daylight

DM POL 11 *"New residential development should be designed to maximise the use of natural daylight and sunlight. Innovative building design and layout that demonstrates a high level of energy conservation, energy efficiency and use of renewable energy sources will be encouraged."*

Applicant's Response

Sunlight/ Daylight analysis has been prepared by Digital Dimensions and the Sustainability Report has been prepared by Richard McElligott, both of forms a part of this pack. For further details we refer to these documents.

3.3.15 Apartments Design Standards

DM POL 12 *"Apartment schemes shall generally be encouraged in appropriate, sustainable, locations, accessible to public transport in the following settlements: Drogheda, Navan, **Dunboyne**, Kilcock, Maynooth, Ashbourne and Dunshaughlin."*

DM POL 14 *"All planning applications for apartments are required to demonstrate compliance with 'Sustainable Urban Housing; Design Standards for New Apartments', Guidelines for Planning Authorities (2018) and any updates thereof. While these Guidelines set out minimum design standards, the Council strongly encourage the provision of apartments above these*

standards, in the interest of creating attractive living environments and sustainable communities."

DM OBJ 39 *"An appropriate mix of units shall be provided to cater for a variety of household types and tenures. Apartment development proposals will be assessed having regard to the following requirements:*

- *Aspect-dual aspect units are encouraged;*
- *Mix of units- to cater for different size households;*
- *Floor areas and room widths;*
- *Private and communal amenity space;*
- *Floor to ceiling height;*
- *Car and bicycle parking;*
- *EV Charging points;*
- *Lift/ stair core access;*
- *Storage provision;*
- *Adaptability.*

All planning applications for apartment development shall be accompanied by a statement which sets out how the scheme complies with this objective."

DM OBJ 40 *"A Design Statement is required to be submitted with any planning application for apartment development."*

Applicant's Response

A Design Statement and HQA, both prepared by MCORM, form a part of this application. For a detailed analysis of compliance with the Apartment Guidelines we refer to Section 7.3 of the Planning Report.

3.3.16 Car Parking

Meath Development Plan 2021-2027 sets out the following objective:

DM OBJ 89 *"Car parking shall be provided in accordance with Table 11.2 and associated guidance notes."*

Land Use – Residential	Car Spaces
Dwellings	2 per conventional dwelling
Flats/ Apartments (Refer to the Design Standards for New Apartments in relation to reduced car parking requirements for development adjacent to existing and future rail stations and minimum requirements in peripheral/or less accessible urban locations)	2 per unit In all cases, 1 visitor space per 4 apartments
Land Use – Commercial	
Food Retail	1 per 20 sq.m. gross floor area. Where the floor area exceeds 1,000 sq.m. gross floor area, 1 space per 14 sq.m. gross floor area. *Provision should be made for taxi drop off spaces.
Non-Food Retail	1 per 20 sq.m. gross floor area.
Land Use - Community Facilities	
Places of Public Worship	1 per 4 seats
Libraries	1 per 20 sq.m. gross floor area
Cultural buildings	To be determined by the Planning Authority
Crèches	1 per employee & dedicated set down area and 1 per 4 children plus dedicated set down area
Surgeries	2 per consulting room

Table 3.7 - Extract from Table 11.2 (Meath Development Plan)

Furthermore, the following is set out in the Meath County Development Plan:

- *'Residential car parking can be reduced at the discretion of the Council, where development is proposed in areas with good access to services and strong public transport links;*
- *Non-residential car parking standards are set down as "maxima" standards;'*

DM OBJ 94 *"All car parks shall include the provision of necessary wiring and ducting to be capable of accommodating future Electric Vehicle charging points, at a rate of 20% of total space numbers."*

DM OBJ 95 *"In any car park in excess of 20 spaces where public access is available, four fully functional charging points for Electric Vehicles shall be provided in*

accordance with IEC 61851 Standard for Electric Vehicle Conductive Charging Systems."

Applicant's Response

488 no. parking spaces is provided for 510 no. apartment and duplex units at 0.96 no. parking bays per apartment/duplex unit.

This parking ratio proposed for the apartment/duplex element of the scheme is adequately supported in the planning precedents to date. This is considered an appropriate number for this development as it is adjacent to Dunboyne Railway Station and accessible to Dunboyne Town Centre.

We note that parking for houses is provided at ratio 1 space for 2-Beds & 2 spaces for 3-Bed+ units, 682 no. spaces.

Accessible car parking spaces shall be provided at a minimum rate of 5%. 27 no. accessible car parking spaces are provided.

There are 22no. parking places provided for café, retail and medical unit. This is considered appropriate in this highly accessible location.

Furthermore, the development will endeavour to deliver parking spaces for the creche in accordance with the Meath County Development Plan of 1 per employee and a dedicated set down area and 1 per 4 children plus dedicated set down area. Car parking for creches is proposed as dual usage with visitors parking apartment blocks.

Overall car parking provision for the development is 1192 no. spaces.

3.3.17 Cycle Parking

The Meath Development Plan 2021-2027 sets out the following objective:

DM OBJ 96 *"To require the provision of cycle parking facilities in accordance with the Design Standards for New Apartments (March 2018) and Table 11.4 Cycle Parking Standards."*

Table 11.4 states the following requirements for apartments: 1 private secure bicycle space per bed space (note – design should not require bicycle access via living area), minimum 2 spaces and 1 visitor bicycle space per two housing units.

Sustainable Urban Housing: Design Standards for New Apartments

Section 4.16 of the apartment design guidelines states the following:

> *"Cycling provides a flexible, efficient and attractive transport option for urban living and these guidelines require that this transport mode is fully integrated into the design and operation of all new apartment development schemes. In particular, planning authorities must ensure that new development proposals in central urban and public transport accessible locations and which otherwise feature appropriate reductions in car parking provision are at the same time comprehensively equipped with high quality cycle parking and storage facilities for residents and visitors."*

The guidelines recommend 1 cycle parking space per bedroom and 1 visitor space for every 2 apartments what matches requirements of the Development Plan. The cycle storage space is also recommended to be secure, accessible, low maintenance and capable of adaption. There are also bicycle parking spaces provided for mid-terraces – 2no. spaces

per unit. Furthermore, 1 space for every 10 car spaces or 1 space per till/checkout, whichever is greater.

Applicant's Response

Table below shows required and provided bicycle parking spaces for apartments and duplexes:

		Development Schedule					Bike Parking Required		Bike Parking Provided	
		1-bed	2-bed	3-bed	4-bed	Total Units	Long Stay Required	Short Stay Required	Long Stay Provided	Short Stay Provided
Apartments	Block A Res	48	83	11	0	142	247	71	248	72
	Block B	46	91	5	0	142	243	71	244	72
	Block C Res	27	84	3	0	114	204	57	204	60
	Sub-Total	121	258	19	0	398	694	199	696	204
Duplexes	Block D	0	14	14	0	28	70	14	72	14
	Block E-1	0	10	8	0	18	44	9	44	10
	Block E-2	0	10	8	0	18	44	9	44	10
	Block F & G	0	16	12	0	28	68	14	68	14
	Block H	0	10	10	0	20	50	10	50	10
	Sub-Total	0	60	52	0	112	276	56	278	58
Total		121	318	71	0	510	970	255	974	262

Table 3.8 – Required and Proposed Bicycle Parking Spaces for Apartments/Duplexes

Additional 650 no. spaces are provided for mid-terrace houses (2 no. long stay spaces per unit plus 4 no. short stay spaces per cell).

Bicycle parking for non-residential uses:

Block A – retail/ medical unit – 12 no. spaces (1 space for every 10 car spaces)

Stand-alone creche – 12 no. spaces (25% pupil registration, minimum 10 spaces and quantum for staff / teachers)

Block C – creche - 12 no. spaces (25% pupil registration, minimum 10 spaces and quantum for staff / teachers)

Additional 6 no. cargo bicycle parking spaces and 6 no. electric bicycle parking are provided – 2 no. spaces of each located undercroft of each of Blocks A-C.

There are 1634 bicycle parking spaces provided across the scheme It is submitted that bicycle parking complies with requirements of the Development Plan and the Sustainable Urban Housing: Design Standards for New Apartments Guidelines (2023) and Sustainable Residential Development and Compact Settlements Guidelines (2024).

3.3.18 Movement Strategy

A section of the Eastern Distributor Road forms a part of the subject proposal. Delivery of the distributor road is essential for unlocking potential of the subject site. Volume 1 – Chapter 5 of the Meath County Development Plan 2021 – 2027 sets Movement Strategy with the following relevant policies for the proposed Dunboyne Eastern Distributor Road as well as for other transport related items:

MOV POL *"To support and facilitate the integration of land use with transportation infrastructure, through the development of sustainable compact settlements which are well served by public transport, in line with the guiding principles outlined in RPO 8.1 of the EMRA RSES 2019-2031."*

MOV POL 17 *"To identify and seek to implement a strategic, coherent and high-quality cycle and walking network across the County that is integrated*

with public transport and interconnected with cultural, recreational, retail, educational and employment destinations and attractions."

MOV POL 19 *"To support the NTA in the development of a strategic pedestrian network plan for the main urban centres of the County."*

MOV POL 20 *"To encourage, where appropriate, the incorporation of safe and efficient cycleways, accessible footpaths and pedestrian routes into the design schemes for town centres/neighbourhood centres, residential, educational, employment, recreational developments and other uses."*

MOV POL 22 *"To prioritise the safe movement of pedestrians and cyclists in proximity to public transport nodes."*

Furthermore, there is an objective listed specifically in relation to transport strategy for Dunboyne:

MOV OBJ 52 *"To continue to support the delivery of key strategic roads within Dunboyne to include an eastern distributor road to facilitate rail-focused development, new bus routes and reduce traffic levels in the town."*

Applicant's Response

Dunboyne Eastern Distributor Road is specifically referenced in the movement strategy as a key strategic road. A portion of the distributor road from Station Road to bridge embankments forms a part of the subject development, while full length of the distributor road from Station Road to Navan Road including an overbridge is subject to a separate application (reg. ref. 24/60063 lodge by a joined venture of the applicant and owner of residential zoned lands at Navan Road, Dunboyne).

3.3.19 Part V Requirements

We confirm that the applicant is committed to the delivery of their Part V obligations as part of this planning application. It is submitted that the applicant has agreed in principle with the Housing Department on this matter and a proposal of 171 units was discussed. Overall Part V accommodation split is proposed as follows:

- 27 no. 1-bed (16%)
- 118 no. 2-bed (69%)
- 26 no. 3-bed (15%)

Agreement was reached with the Housing Department of Meath County Council and a letter to that effect is now enclosed herewith. Costing and further details as required will be provided prior to commencement. It is submitted that the proposal complies with the Part V requirements in the Meath County Council Development Plan.

3.3.20 Crèche Provision

The Meath Development Plan 2021-2027 sets out the following objective:

DM POL 25 *'To facilitate the provision of childcare facilities in appropriate locations as set out in accordance with the provisions of the DoEHLG 'Childcare Facilities Guidelines for Planning Authorities' (2001). '*

DM POL 26 *"Development of childcare facilities at the following locations will normally be encouraged;*

- *Areas of concentrated employment and business parks;*
- ***Within new and existing residential developments;***
- *Neighbourhood Centres;*
- *Large retail developments;*

- *Schools or major educational facilities;*
- *Adjacent to public transportation; and*
- *Villages and Rural Nodes."*

DM OBJ 68 *"Planning applications for childcare facilities shall be assessed for compliance with the following criteria:*

- *Suitability of the site for the type and size of facility proposed.*
- *Impact on residential amenity of surrounding residential development;*
- *Adequate availability of indoor and outdoor play space;*
- *Convenience to public transport nodes, pedestrian and cycling facilities;*
- *Local traffic conditions;*
- *Safe access and sufficient convenient off-street car parking and/or suitable drop-off and collection points for customers and staff;*
- *Number of such facilities in the area. In this regard, the applicant shall submit a map showing the locations of childcare facilities within the vicinity of the subject site and demonstrate the need for an additional facility at that location.*
- *Proposed hours of operation;*
- *Car-parking provision; (please refer to Section 11.9.1)*
- *Location of secure external play area including secure site boundaries."*

DM OBJ 69 *"All applications for childcare facilities shall comprehensively set out the following as part of a pre-application discussion and/or planning application proposal:*

- *The type of childcare facility proposed – Full day care; sessional service including playgroups, preschools and Montessori; Child minding;*
- *No. of children;*
- *No. of employees;*
- Proposed hours of operation;
- Car-parking provision; (please refer to Section 11.9.1)
- Location of secure external play area including secure site boundaries.

Applicant's Response

2 no. childcare facilities (c. 394 sqm and c. 400 sqm) are provided in the proposed scheme. It is submitted that the proposal has been informed by the Development Plan objectives. For a detailed compliance with the *'Childcare Facilities Guidelines for Planning Authorities' (2001)* and with the 'Sustainable Housing: Design Standard for New Apartments' (2023) we refer to Section 7 of the Planning Report.

3.3.21 Drainage

DM OBJ 7 *"Sustainable Urban Drainage Systems (SuDS) measures are required to form part of the design of all developments."*

Applicant's Response

It is submitted that the proposal is compliant with the policies and objectives listed above. For further details we refer to 163022-X-91-Z00-DTM-DR-DBFL-CE-1304-0-Surface Water Layout Sheet 1-3 and Engineering Services Report prepared by DBFL.

3.3.22 Public Lighting

DM POL 3 *"All public lighting proposals shall be in accordance with the Councils Public Lighting Technical Specification & Requirements, June 2017, and the Council's Public Lighting Policy, December 2017, (or any updates thereof)."*

DM OBJ 9 *"A separation distance of 5 metres between the lighting column and the outside of the crown is required for the lighting to work as designed. Trees or vegetation shall not be planted within 7 metres of a public light column."*

DM OBJ 10 *"The design of all new developments shall take into consideration the layout of the proposed public lighting column locations and the proposed landscape design. Both layouts should achieve the 7 metres separation between all trees and public lighting columns."*

Applicant's Response

It is submitted that the listed objectives are acknowledged and detailed in the lighting proposal prepared by Sabre which forms a part of this application is in compliance with these objectives.

3.3.23 Trees and Hedgerows

DM OBJ 11 *"Existing trees and hedgerows of biodiversity and/or amenity value shall be retained, where possible."*

Applicant's Response

It is submitted that Hedgerows were surveyed and assessed by Enviroguide and their findings will be included in Hedgerow Appraisal Report which forms a part of a relevant EIAR Chapter. Their findings were fully considered by the design team. Hedgerow compensation planting was proposed to mitigate loss of hedgerows which were not possible to be retained. For further details we refer to packs prepared by Enviroguide and KFLA.

Trees retention is informed by arborist inputs and details are provided in the Arborist Report and drawings prepared by Arborist Associates which form a part of this application.

3.3.24 Natural Heritage

HER POL 27 *"To protect, conserve and enhance the County's biodiversity where appropriate."*

HER POL 28 *"To integrate in the development management process the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate."*

HER POL 31 *"To ensure that the ecological impact of all development proposals on habitats and species are appropriately assessed by suitably qualified professional(s) in accordance with best practice guidelines – e.g. the preparation of an Ecological Impact Assessment (EcIA), Screening Statement for Appropriate Assessment, Environmental Impact Assessment, Natura Impact Statement (NIS), species surveys etc. (as appropriate)."*

HER POL 37 *"To encourage the retention of hedgerows and other distinctive boundary treatments in rural areas and prevent loss and fragmentation, where practically possible. Where removal of a hedgerow, stone wall or other*

distinctive boundary treatment is unavoidable, mitigation by provision of the same type of boundary will be required."

HER POL 38 *"To promote and encourage planting of native hedgerow species in new developments and as part of the Council's own landscaping works."*

HER OBJ 32 *"To actively support the implementation of the All Ireland Pollinator Plan 2021-2025 and any revisions thereof."*

HER OBJ 33 *"To ensure an Appropriate Assessment in accordance with Article 6(3) and Article 6(4) of the Habitats Directives (92/43/EEC) and in accordance with the Department of Environment, Heritage and Local Government Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 and relevant EPA and European Commission guidance documents, is carried out in respect of any plan or project not directly connected with or necessary for the management of the site but likely to have a significant effect on a Natura 2000 site(s), either individually or in-combination with other plans or projects, in view of the site's conservation objectives."*

HER POL 35 *"To ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites and to require an appropriate level of ecological assessment by suitably qualified professional(s) to accompany development proposals likely to impact on such areas or species."*

HER OBJ 36 *"To promote awareness, understanding and best practice in the management of the County's woodland, tree and hedgerow resource."*

HER POL 38 *"To promote and encourage planting of native hedgerow species in new developments and as part of the Council's own landscaping works."*

HER POL 40 *"To protect and encourage the effective management of native and semi-natural woodlands, groups of trees and individual trees and to encourage the retention of mature trees and the use of tree surgery rather than felling, where possible, when undertaking, approving or authorising development."*

Applicant's Response

The subject application is accompanied by the Appropriate Assessment Screening Report and Natura Impact Statement prepared by Enviroguide and an EIAR including ecological surveys having regard to the environmental and ecological context of the site, its immediate surroundings and proximity to Natura 2000 sites including the Liffey Valley – Proposed Natural Heritage Area to the south, Santry Demesne - Proposed Natural Heritage Area, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, South Dublin Bay - Proposed Natural Heritage Area to the east and others.

3.3.25 Cultural Heritage

HER POL 1 *"To protect sites, monuments, places, areas or objects of the following categories:*

Sites and monuments included in the Sites and Monuments Record as maintained by the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht;

Monuments and places included in the Record of Monuments and Places as established under the National Monuments Acts;

Historic monuments and archaeological areas included in the Register of Historic Monuments as established under the National Monuments Acts;

National monuments subject to Preservation Orders under the National Monuments Acts and national monuments which are in the ownership or guardianship of the Minister for Culture, Heritage and the Gaeltacht or a local authority;

Archaeological objects within the meaning of the National Monuments Acts; and Wrecks protected under the National Monuments Acts or otherwise included in the Shipwreck Inventory maintained by the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht."

HER POL 2 *"To protect all sites and features of archaeological interest discovered subsequent to the publication of the Record of Monument and Places, in situ (or at a minimum preservation by record) having regard to the advice and recommendations of the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht and The Framework and Principles for the Protection of the Archaeological Heritage (1999)."*

HER POL 3 *"To require, as part of the development management process, archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, for development in the vicinity of monuments or in areas of archaeological potential. Where there are upstanding remains, a visual impact assessment may be required."*

HER POL 4 *"To require, as part of the development management process, archaeological impact assessments, geophysical survey, test excavations or monitoring as appropriate, where development proposals involve ground clearance of more than half a hectare or for linear developments over one kilometre in length; or developments in proximity to areas with a density of known archaeological monuments and history of discovery as identified by a suitably qualified archaeologist."*

HER POL 5 *"To seek guidance from the National Museum of Ireland where an unrecorded archaeological object is discovered, or the National Monuments Service in the case of an unrecorded archaeological site."*

HER OBJ 2 *"To ensure that development in the vicinity of a Recorded Monument or Zone of Archaeological Potential is sited and designed in a sensitive manner with a view to minimal detraction from the monument or its setting."*

HER OBJ 3 *"To protect important archaeological landscapes from inappropriate development."*

HER OBJ 4 *"To encourage the management and maintenance of the County's archaeological heritage, including historic burial grounds 2, in accordance with best conservation practice that considers the impact of climate change."*

HER OBJ 5 *"To promote awareness of, and encourage the provision of access to, the archaeological resources of the county."*

Applicant's Response

Archaeological zones and their buffers are one of key factors which impacted site layout. Policies and objectives listed above are addressed as part of the Archaeological and Cultural Heritage chapter of an Environmental Impact Assessment Report which forms a part of this application.

3.3.26 Infrastructure Strategy

Volume 1 Chapter 6 Infrastructure Strategy of the Meath County Development Plan 2021 – 2027 sets following policies and objectives:

Surface Water:

INF POL 16 *"To ensure that all planning applications for new development have regard to the surface water management policies provided for in the LDSDS."*

INF POL 17 *"To liaise and work in conjunction with Irish Water in the implementation of the Memorandum of Understanding (MOU) for surface water drainage and flood management, including the separation of foul and surface water drainage networks where feasible and undertake drainage network upgrades to help remove surface water misconnection and infiltration."*

INF OBJ 14 *"To require the use of SuDS within Local Authority Developments and other infrastructural projects in accordance with the Greater Dublin Regional Code of Practice for Drainage Works."*

INF OBJ 15 *"To require the use of SuDS in accordance with the Greater Dublin Regional Code of Practice for Drainage Works for new developments (including extensions). INF OBJ 16 To ensure that all new developments comply with Section 3.12 of the Greater Dublin Regional Code of Practice for Drainage Works V6 which sets out the requirements for new developments to allow for Climate Change."*

INF OBJ 17 *"To ensure that all new commercial developments provide on-site petrol/oil interceptors and silt traps as per Section 20 of the Greater Dublin Regional Code of Practice for Drainage Works V6."*

INF OBJ 18 *"To ensure that new developments provide for the separation of foul and surface water drainage networks within application site boundaries."*

INF OBJ 19 *"To ensure that developments permitted by the Council which involve discharge of wastewater to surface waters or groundwaters comply with the requirements of the EU Environmental Objectives (Surface Waters) Regulations and EU Environmental Objectives (Groundwater) Regulations."*

Applicant's Response

The site has been divided into a number of catchments, each surface water catchment will have a separate attenuation storage system and controlled discharge point to an existing surface water sewer that runs along the western site boundary or a receiving existing watercourse. As requested by MCC all the attenuation systems will be on-line and a petrol interceptor will installed.

There is a number of SuDS features proposed for the subject site described in the Engineering Services Report prepared by DBFL. The proposal includes features as swales, permeable pavement, filter drains and soakways, green roofs, extensive green roofs, cellular attenuation system and petrol inceptor.

Flood Risk Management:

INF POL 18 *"To implement the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoEHLG/OPW, 2009) through the use of the sequential approach and application of Justification Tests for Development Management and Development Plans, during the period of this Plan."*

INF POL 19 *"To implement the findings and recommendations of the Strategic Flood Risk Assessment prepared in conjunction with the County Development Plan review, ensuring climate change is taken into account."*

INF POL 20 *"To require that a Flood Risk Assessment is carried out for any development proposal, where flood risk may be an issue in accordance with the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoECLG/OPW, 2009). This assessment shall be appropriate to the scale and*

nature of risk to and from the potential development and shall consider the impact of climate change."

INF POL 25 *"To have regard to the recommendations of the Fingal East Meath Flood Risk Assessment and Management Study (FEMFRAMS) and the Eastern Catchment Flood Risk Assessment and Management Study (CFRAMS)."*

INF OBJ 23 ***"****To protect and enhance the County's flood-plains, wetlands, and coastal areas subject to flooding as "green infrastructure" which pro-vide space for storage and conveyance of floodwater and ensure that development does not impact on important wetland sites within river/stream catchments."*

INF OBJ 25 *"To require the use of Sustainable Urban Drainage Systems (SuDS) to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques where appropriate, for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks."*

INF OBJ 30 *"To ensure the County's natural coastal de-fences, such as beaches, sand dunes, salt marshes and estuary lands, are protected and are not compromised by inappropriate works or forms of development."*

INF OBJ 32 *"To Identify, prioritise and implement necessary coastal protection works subject to the availability of resources, whilst ensuring a high level of protection for natural habitats and features, and to ensure due regard is paid to visual and other environmental considerations in the design of any such coastal protection works. This will include the identification of coastal areas sensitive to climate change and consequent coastal erosion."*

Applicant's Response

Flood Risk Assessment prepared by JBA concludes that it was determined that according to OPW Fluvial Flood Map the 1% AEP flood event (Flood Zone A) does not inundate the site with a small section of the site inundated in the 0.1% AEP flood event (Flood Zone B).

The detailed hydrological and hydraulic analysis has been undertaken to verify the CFRAM mapping within the main site boundary and add in additional drainage ditches not previously modelled. The modelling confirms the drainage ditches contain both Flood Zone A and B from overland flows from the Tolka River in their lower reaches. One of these drains in Flood Zone B is proposed to be backfilled as part of the development.

Compensatory storage has been designed for the site which compensates for the loss of Flood Zone B.

Risk to the site is managed by setting floor levels to the 1% AEP climate change water level, plus a freeboard allowance of at least 500mm, this the case for both MFRS and HEFS scenarios. All buildings have also been located in Flood Zone C, further minimising the risk of inundation. The post-development modelling also confirms there is no increase in flood risk to the site or surrounding lands as a result of the proposed development.

The stormwater system has been incorporated within the proposed design to manage surface water run-off from the site. A threshold of 150mm is provided from the ground floor level to the surrounding hardstanding area. Where the 150mm offset is not provided, the proposed gradients ensure that surface water runoff is conveyed away from the buildings. Further detail is supplied in the Engineering Services Report completed by DBFL Consulting Engineers under separate cover. Residual risks have been identified as potential impacts of structure blockage and potential failure of the stormwater system, both have been shown to have been assessed and mitigated.

The Justification Test was applied and passed as the hydraulic modelling confirms there is no increase in risk elsewhereand the development can manage the risk to itself.

The Flood Risk Assessment was undertaken in accordance with 'The Planning System and Flood Risk Management' guidelines and is in agreement with the core principles contained within.

Waste

INF POL 61 *"To facilitate the implementation of National Waste Legislation, National and Regional Waste Management Policy and the circular economy."*

INF POL 65 ***"****To adopt the provisions of the waste management hierarchy and implement policy in relation to the County's requirements under the current or any subsequent Waste Management Plan. All prospective developments in the County shall take account of the provisions of the regional waste management plan and adhere to the requirements of the Plan. Account shall also be taken of the proximity principle and the inter-regional movement of waste."*

INF POL 66 ***"****To ensure that hazardous waste is addressed through an integrated approach of prevention, collection, and recycling and encourage the development of industry-led producer responsibility schemes for key waste streams."*

INF POL 70 *"To encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials in future construction projects."*

INF OBJ 67 *"To require developers to prepare construction and demolition waste management plans for new construction projects over certain thresholds which shall meet the relevant recycling/recovery targets for such waste in accordance with the national legislation and national and regional waste management policy."*

INF OBJ 74 *"To require that outdoor lighting proposals minimise the harmful effects of light pollution and to ensure that new street lighting is appropriate to a particular location and that environmentally sensitive areas are protected from inappropriate forms of illumination."*

Applicant's Response

Objectives and Policies of the Meath County Development Plan 2021 – 2027 are acknowledged and addressed in Resource Waste Management Plan, Operational Waste Manage Plan and a relevant EIAR Chapter 14 (all prepared by Enviroguide) accompanying this application.

3.4 Transportation Study at Dunboyne & Environs (2018)

The Transport Strategy is a non-statutory document which recognises Dunboyne's potential for future development as a sustainable community with strong links to the town centre and Dublin City based on its location alongside railway and proximity to M3 highway.

It presents a comprehensive analysis of the current transport situation in Dunboyne, the effect on transportation and presents potential solutions to improve conditions across the network for walking/cycling, driving and public transport services.

The Transportation Study advocates for Eastern Distributor Road between Station Road and Dunboyne Business Park as one of 3 key measures (as marked on the figure below) to improve safety conditions in the town centre for active modes. A Heavy Goods Vehicle (HGV) ban is proposed in central areas of Dunboyne Town. It is expected to decrease volume of traffic in the town centre in general. The route of the distributor road is taken from the Meath Development Plan 2013-2019 which was valid a statutory document in the

time of preparation of the Study. The current Development Plan modifies its route, however, the principle remains unaltered.

Figure 3.7 - Proposed Dunboyne Town Centre Road Links by Transportation Study at Dunboyne & Environs (2018)

The Dunboyne Transportation Study (2018) identifies the Dunboyne East Distributor Road as a short term intervention that will facilitate high density rail-focused development on the residentially zoned lands to the north east of the town. In line with objectives 3, 4 and 5, the study also notes that the function of the Eastern Distributor Road "*is not to provide additional road based capacity but to provide improved access to suitable roads and to reduce the level of traffic through the town centre and Station Road*".

The route of the distributor road is taken from the Meath Development Plan 2013-2019 which was valid a statutory document in the time of preparation of the Study. The current Development Plan modifies its route; however, the principle remains unaltered.

Furthermore, the distributor road is proposed by the Study to have urban form and function to provide balanced levels of service to both active modes and motorised modes. Proposed pedestrian/cycle facilities are provided in the corridor of the distributor road and a potential cross section as illustrated in Figure 3.8 is suggested.

While the distributor road is not anticipated to require a bus lane in the short term, it is suggested to provide for a verge which can be converted into a bus lane when a need for it arises.

Figure 3.8 - Potential Cross Section for the Distributor Road by Transportation Study at Dunboyne & Environs (2018)

The subject proposal is compliant with the potential cross section as proposed in the Transportation Study to accommodate for pedestrians, cyclists, and potential bus lanes in the future.

3.25 m width has been applied to drive lanes to the south to accommodate low loader entering the station car park.

We submit that the proposal of the distributor road is supportive of the objectives of Transportation Study at Dunboyne & Environs (2018).

4 CONSIDERATION OF ALTERNATIVES

4.1 Expertise

This chapter of EIAR has been prepared by Katarina Kanevova, planner, who completed her Master's Degree in Spatial Planning at Slovak University of Technology in Bratislava, Slovakia in 2010. Following her studies she worked in forward planning, specialised on land-use planning projects in Slovakia. Her main focus after moving to Ireland is on residential development. Katarina is a Corporate Member of the Irish Planning Institute.

4.2 Introduction

The requirement to consider alternatives within an EIAR is set out in Annex IV (2) of the EIA Directive (2014/52/EU) and in Schedule 6 of the Planning and Development Regulations, 2001, as amended, which state:

> *"A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment."*

The Schedule 6(2)(b) of the Regulations implement this requirement by requiring the following information:

> *(b) "a description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects;"*

Reasonable alternatives may include project design proposals, location, size and scale, which are relevant to the proposed development and its specific characteristics. The Regulations require that an indication of the main reasons for selecting the preferred option, including a comparison of the environmental effects to be presented in the EIAR.

The Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018) – states:

> *"The Directive requires that information provided by the developer in an EIAR shall include a description of the reasonable alternatives studied by the developer. These are reasonable alternatives which are relevant to the project and its specific characteristics. The developer must also indicate the main reasons for the option chosen taking into account the effects of the project on the environment."*
>
> *"Reasonable alternatives may relate to matters such as project design, technology, location, size and scale. The type of alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment. For example, some projects may be site specific so the consideration of alternative sites may not be relevant. It is generally sufficient for the developer to provide a broad description of each main alternative studied and the key environmental issues associated with each. A 'mini- EIA' is not required for each alternative studied."*

As such, the consideration and presentation of the reasonable alternatives studied by the project design team is an important requirement of the EIA process.

This chapter provides an outline of the main alternatives examined during the design phase. It sets out the main reasons for choosing the development as proposed, taking into account and providing a comparison on the environmental effects.

This chapter assesses the evolution of development and the alternatives examined by the Applicant relating to the location, size and scale and project design and technology of the Proposed Development. This section provides a full justification for the proposed development and provides a comparison of the environmental effects of each alternative option.

The main alternatives examined throughout the design process are set out as follows:

- Alternative Locations
- Alternative Designs and Layouts
- Alternative Processes

The design of the proposed development was subject to a number of design iterations. Every effort was made, during the design evolution, to ensure that the development was sympathetic to the site conditions and contours, ecology and receiving environment.

4.3 Alternative Locations

As noted in Section 4.13 of the 2018 Guidelines *"some projects may be site specific so the consideration of alternative sites may not be relevant"*.

We refer to the guidelines on Information to be contained in Environmental Impact Assessment Reports (EPA 2022), which states that in some instances alternative locations may not be applicable or available for a specific project which is identified for a specific location.

No alternative locations for the proposed development were considered in this case. The subject lands are appropriately zoned for residential development and the provision of public open space.

The subject lands and wider lands within the applicants landholding are included within the Meath County Development Plan 2021-2027, which included a detailed strategy outlining how the lands adjacent to the railway station could be appropriately developed as a new residential neighbourhood as can be seen below.

> *'The strategic location of Dunboyne and Clonee along a multi-modal road and rail corridor in the Dublin Metropolitan Area makes the area well positioned to accommodate significant population growth and economic investment.'*
>
> *'Residential growth will also be focused on centrally located lands in proximity to the rail stations in the town.'*
>
> *'To continue to support the delivery of key strategic roads within Dunboyne to include an eastern distributor road to facilitate rail-focused development, new bus routes and reduce traffic levels in the town.'*

Despite the publishment of this plan for the lands, no development on the subject lands has taken place.

Given the sites appropriate zoning for residential development, the subject site was considered an ideal location by the applicant for the development of a new residential scheme.

Having regard to the nature and design of the development, it is considered that the proposed development is an effective and appropriate use of the subject site.

It is noted that extensive preliminary studies were conducted on the site prior to the preparation of a full planning application pack to ensure the site suitability as part of the due diligence process. This included the following assessments:

- Topographical Surveys

- Preliminary Ecological Surveys and Assessments
- Preliminary Flood Risk Assessments
- Archaeological and Geophysical Surveys
- Arboricultural Survey
- Test fits of early design iterations of the scheme

The development of the lands at Station Road will provide much needed residential accommodation in Dunboyne and as such, no alternative locations for the proposed development were considered.

4.4 Alternative Designs

Several Alternative Designs were undertaken by MCORM throughout the design process before arriving at the final project design as submitted with this planning application.

The final design of the scheme has evolved as part of a multi-disciplinary process with input from all EIAR team members, the project design team, applicant, and primarily advice received as part of the extensive pre planning process with Meath County Council, which consisted of an initial section 247 pre planning meeting followed by an LRD meeting. An opinion on the scheme proposed to Meath County Council at each of the pre planning phases was circulated following the pre planning meetings, which in turn informed design changes to the scheme which have been incorporated into the final development proposal.

The 2 no. scheme designs that were presented to Meath County Council as they evolved through preplanning are described below.

Option 1

A section 247 meeting was held with Meath County Council on the 22nd September 2023 presenting an initial conceptual scheme for comment. The initially proposed scheme consisted of the following:

- construction of 843 no. residential units comprising 381 no. apartments arranged in 4 blocks across 3-6 storeys, 104 no. duplexes arranged in 6 blocks across 3 storeys and 358 no. houses arranged across 1-3 storeys.
- café (c.167sqm); 2 no. retail units (c.620sqm total area); 2 no. creche facilities (c.400sqm each); Section of the Dunboyne Eastern Distributor Road (c.825m long); New vehicular, pedestrian and cycle connections to Dunboyne Train Station and closure of the existing vehicular access from Station Road (L2228); Demolition of an existing dwelling (c.86sqm) and structures (c.130sqm) south of the site; and
- all associated site development works, services provision, infrastructural and drainage works, internal access roads, homezones and cycle and pedestrian infrastructure, provision of ESB substations, bin stores, car and bicycle parking, public lighting, 13 no. public open spaces (c.24,517sqm total) 7 no. communal open spaces (c.6,637sqm total) and private open space (terrace and balconies) associated with the residential units, landscaping, and boundary treatment works.

The site layout plan as submitted for the s. 247 meeting with Meath County Council is presented below.

Figure 4.1 – S247 Proposed Residential Layout by MCORM Architects

Key concerns raised by Meath County Councils Planners with the scheme proposed at the initial s. 247 meeting are summarised as follows:

- **Density**
  - MCC requested that the southern and northern areas should provide a strong urban edge and operate as mixed-use hubs incorporating public space and a mix of uses.
  - It was noted that there is potential for additional duplexes along the Eastern Distributor Road (EDR), creating a strong presence along the route and affording an opportunity to increase the overall density within the development, adjoining a public transport corridor.

- **Layout**

- Site layout should be permeable and allow for ease of movement (following desire lines) across the site
- All necessary buffers with rail line, flood zone, archaeology, etc. to be observed
- Landscape proposal of public open space in the archaeological areas should be considered and additional buffer zone of 10 m should be added

- **Design**
  - MCC advised the applicant to consider Building Heights Guidelines and associated SPPR requirements, providing bookends to rows (as per House Type E and E1), with increased structure heights near the train station. Buildings beside the train station car park should incorporate dual frontage design.
  - Distinguishable character areas should be proposed
  - Purpose built childcare facilities should follow design standards and their location should be reconsidered

Comments from the Meath County Council Planners present at the section 247 meeting were considered and the design proposal was updated accordingly. A revised proposal to incorporate the comments received at the s.247 pre planning meeting was submitted to Meath County Council as part of the LRD meeting request pack, which presented a proposal updated to reflect the comments received from MCC at the initial s. 247 meeting as outlined below:

Option 2

An LRD meeting was held with Meath County Council on the 13th of February 2024 following on from the initial s. 247 pre planning meeting. A revised proposal was submitted to Meath County Council, incorporating the comments received regarding the proposal submitted for the initial s. 247 meeting. The revised 'Option 2' development consisted of the following:

- construction of 837 no. residential units comprising 392 no. apartments arranged in 4 blocks across 3-6 storeys, 92 no. duplexes arranged in 6 blocks across 3-4 storeys and 353 no. houses arranged across 1-3 storeys.
- café (c.196sqm); 2 no. retail units (c.590sqm total area); 2 no. creche facilities (c.400sqm each); Section of the Dunboyne Eastern Distributor Road (c.825m long); New vehicular, pedestrian and cycle connections to Dunboyne Train Station and closure of the existing vehicular access from Station Road (L2228); upgrade of Station Road (L2228) – proposed Distributor Road junction; alternation s to 2no. roundabouts on the R147; and
- all associated site development works, services provision, infrastructural and drainage works, internal access roads, homezones and cycle and pedestrian infrastructure, provision of ESB substations, bin stores, car and bicycle parking, public lighting, 12 no. public open spaces (c.25,718sqm total) 7 no. communal open spaces (c.5,750sqm total) and private open space (terrace and balconies) associated with the residential units, landscaping, and boundary treatment works.

The site layout plan as submitted for the LRD meeting with Meath County Council is presented below:

Figure 4.2 – Option 2 Site Layout

The scheme was updated to reflect comments received from Meath County Council after the initial s. 247 pre planning meeting. Concerns raised by Meath County Councils Planners with the scheme proposed at LRD meeting stage are summarised as follows:

- **Density**
    - Proposed density has to comply with the Sustainable Residential Development and Compact Settlements Guidelines. Increasing heights and densities are to be welcomed, particularly with some of the duplexes/ apartments and housing units along the proposed EDR.
- **Layout/ Design**

- The applicant shall demonstrate that the proposal integrates with its surrounding and there is a high level of connectivity and permeability through and around the site.
- There must be visual interest within the site, key focal points, character areas for placemaking/ providing a sense of place, etc. A variety of building types and heights, hard/ soft landscaping finishes are required, and the massing, scale and form must be appropriate to the site.
- Active building frontage along the EDR and main access through the development is advised to be provided.
- Shared stairwell for proposed duplexes to be considered.
- House wall/ boundary wall apeears to encroach on a 10m buffer around archaeology in Open Space 8.

- **Dwelling Design and Finishes**

  - A Planning Design Statement which addresses the concerns raised at the meeting on the 17/02/2022 regarding the design of the proposed duplex units should be submitted. In particular, the design statement should address the dominance of the access steps to the above ground floor duplex units and the impact these steps would have on the amenity of the ground floor unit, noting that they may appear overbearing and may overshadow the nearby windows of these units, the finishes to these external steps in terms of how they discolour over time due to water and the location of these units to the front of the development, which would be one of the first buildings you see as you enter the development and as viewed on approach from the Brunel Bridge to the south.

- **Social Infrastructure**

  - There is a concern regarding insufficient school capacity to cover future need of new residential developments in the area. Therefore a robust assessment of schools in the area is required.
  - Community facility to be considered.

- **Archaeology**

  - Furter documents and strategies – principally a Conservation Plan are required.
  - It is recommended that the EIAR proposes a more thorough archaeological mitigation strategy.

- **Part V**

  - Details of how the design of the proposed Part V units complies with the requirements of the housing authority.

- **Surface Water Management**

  - The applicant should redesign the proposed surface water system so as to discharge all surface water to the east of the subject site.

Comments from the Meath County Council Planners present at the LRD meeting were considered and the proposal was updated accordingly, giving rise to the proposal that is currently submitted to the planning authority for consideration, 'Option 3 – Chosen Option'.

Option 3 – Chosen Option

Option 3 represents the 'Chosen Option' now submitted to the planning authority for consideration. The project design team has endeavoured to incorporate all comments received from Meath County Council into the final design proposal. The proposal now put forward before the county council for consideration is summarised as follows:

- construction of 853 no. residential units comprising 343 no. apartments arranged in blocks A-C across 1-6 storeys, 112 no. duplexes arranged in blocks D-H across 2-4 storeys and 398 no. houses arranged across 1-3 storeys.
- café (c.196sqm); medical unit 1 (197 sqm), 2 no. retail units (c.217 sqm and c.170 sqm); community room (c. 52 sqm); 2 no. creche facilities (c.394 sqm and c.400s qm); Section of the Dunboyne Eastern Distributor Road (c.825m long); New vehicular, pedestrian and cycle connections to Dunboyne Train Station and closure of the existing vehicular access from Station Road (L2228); upgrade of Station Road (L2228) – proposed Distributor Road junction; alternation s to 2no. roundabouts on the R147; and
- all associated site development works, services provision, infrastructural and drainage works, internal access roads, homezones and cycle and pedestrian infrastructure, provision of ESB substations, bin stores, car and bicycle parking, public lighting, 13 no. public open spaces (c.23,925 sqm total); 7 no. communal open spaces (c. 6,279 sqm total) and private open space (terrace and balconies) associated with the residential units, landscaping, and boundary treatment works.

The site layout plan of the chosen Option 3 is outlined below for the benefit of the planning authority:

Figure 4.3 – Chosen Site Layout

4.5 Do Nothing Alternative

The site is zoned for the provision of residential development as per the Meath County Development Plan 2021-2027 which provides the most recent planning context for the subject site. The site was also previously included within the Dunboyne Clonee Pace Local Area Plan 2009-2015 which set out a detailed strategy for how the lands could be appropriately developed as a residential offering. This shows that the site has been zoned for residential led development for c. 15 years despite no development taking place on the vast majority of the lands now within the applicant's landholding.

As there have been no alternative locations considered for the development as per the reasons outlined in section above, it is considered that the 'Do Nothing' Alternative of leaving the development site as greenfield lands would be contrary to Meath County Councils development objectives for the subject site and leave these lands undeveloped.

4.6 Alternative Processes

Alternative processes are not considered relevant to this Environmental Impact Assessment Report given the nature of the proposed development.

4.7 Environmental Impacts of Design Evolution

It is considered that the above evolution of the scheme from option 1 through to option 2 and the chosen option 3 were not driven by environmental factors but rather by design choices implemented by the design team.

The design team has endeavoured to ensure that the proposal presents the most sustainable design option for the site from the initial outset of the design of the scheme.

An Appropriate Assessment Screening Report was prepared for the subject site which concluded the following.

*Upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this Report that the possibility **may be excluded** that the Proposed Development will have a significant effect on any of the European sites listed below:*

- Rye Water Valley/Carton SAC (001398)
- Baldoyle Bay SPA (004016)
- Malahide Estuary SPA (004025)

These European sites are therefore screened out at this stage of the AA process. In carrying out this AA screening, specific targeted mitigation measures have not been taken into account.

*However, it is also concluded by the authors of this Report that the possibility **cannot be excluded** that the Proposed Development will have a significant effect on the European sites listed below:*

- North Dublin Bay SAC (000206)
- South Dublin Bay SAC (000210)
- South Dublin Bay and River Tolka Estuary SPA (004024)
- North Bull Island SPA (004006)

On the basis of the screening exercise carried out above, it can be concluded, on the basis of the best scientific knowledge available and objective information, that the possibility of any likely significant effects on the above listed European sites, whether arising from the project itself or in combination with other plans and projects, cannot be excluded in light of the above listed European sites' conversation objectives. Thus, in an abundance of caution, there is a requirement to proceed to Stage 2 of the AA process; and a NIS has been prepared and accompanies this submission under separate cover".

The NIS Conclusions are as follows:

"This NIS details the findings of the Stage 2 AA conducted to further examine the potential direct and indirect impacts of the Proposed John Connaughton Ltd. Development at Station Road and Pace Line, Dunboyne, Co. Meath, on the following European Sites:

- North Dublin Bay SAC (000206).
- South Dublin Bay SAC (000210).
- South Dublin Bay and River Tolka Estuary SPA (004024).
- North Bull Island SPA (004006).

The above sites were identified by a screening exercise that assessed likely significant effects of a range of impacts that have the potential to arise from the Proposed Development. The NIS investigated the likely direct and indirect effects of the proposed works, both during construction and operation, on the integrity and qualifying interests of the four

above European Sites, alone and in combination with other plans and projects, taking into account the site's structure, function and conservation objectives, and having regard to best scientific knowledge.

Where potentially significant effects were identified, a range of mitigation and avoidance measures have been suggested to avoid them. This NIS has concluded that, once the avoidance and mitigation measures are implemented as proposed, the Proposed Development will not have an adverse effect on the integrity of the above European sites, individually or in combination with other plans and projects. Where applicable, a suite of monitoring measures have been proposed to confirm the efficacy of said mitigation in relation to ensuring no adverse effects on the habitats or species of the relevant European sites have occurred.

As a result of the complete, precise and definitive findings in of this NIS, it has been concluded, beyond reasonable scientific doubt, that the Proposed Development will have no adverse effects on the integrity and extent of North Dublin Bay SAC (000206), South Dublin Bay SAC (000210), South Dublin Bay and River Tolka Estuary SPA (004024) and North Bull Island SPA (004006). Accordingly, the Proposed Development will not adversely affect the integrity of any relevant European site."

Soil & Geology:

During the construction phase there is a risk of accidental pollution from the sources noted below. Accidental spills and leaks may result in contamination of the soils underlying the site.

- Storage of oils and fuels on site
- Oils and fuels leaking from construction machinery
- Spillage during refuelling and maintenance of construction machinery
- Use of cement and concrete during construction works

Groundwater vulnerability is mapped as 'high' to 'moderate' by the Causeway Geotech at the proposed site. This vulnerability will likely be temporarily increased due to the removal of soils, subsoils and made ground cover during construction. Therefore, accidental spillages may impact on the 'locally important' aquifer.

The final design ensures that the vast majority of excavated material from surface stripping, road grading and foundation excavation will consist of naturally occurring topsoil and subsoil and will be largely reusable. The final design will have minimal impact on local geology, where possible, excavated material will be reused on site.

Materials will be brought to site and placed in their final position in the shortest possible time. Any imported material will be kept separate from any site-won material arising from the site. All excavation to accommodate imported material will be precisely co-ordinated to ensure no surplus material is brought to site beyond engineering requirements. Please note further site investigation will be conducted to confirm the suitability and quantity of material for reuse and imported fill.

Water & Hydrology:

Potential impacts that may arise during the construction phase are noted below:

- Discharge of rainwater pumped from excavations may also contain increased silt levels (potential impact on existing hydrology e.g. discharge to existing open drainage).
- Diversion of drainage and modification of hydrological regime
- Accidental spills and leaks associated with storage of oils and fuels, leaks from construction machinery and spillage during refueling and maintenance contaminating the surrounding surface water and groundwater environments.

- Concrete runoff, particularly discharge of wash water from concrete trucks (potential impact on existing hydrology e.g. infiltration to ground).
- Discharge of vehicle wheel wash water (potential impact on existing hydrology e.g. discharge to existing surface water drainage infrastructure).
- Cross contamination of potable water supply to construction compound.
- Improper discharge of foul drainage from contractor's compound (impact on existing hydrology e.g. cross-contamination of existing surface water drainage).
- Surface water runoff during the construction phase may contain increased silt levels (e.g. runoff across areas stripped of hardstanding) or become polluted by construction activities.

The application location on the subject lands or general quantity of units proposed has not been subject to major variations throughout the design phase. The surface water management approach has been revised since the S247 meeting to accommodate the recommendations of MCC. The majority of the site now discharges to the east to the Tolka River and its tributaries. A number of attenuation features, both open and below the ground, are proposed to cater for runoff generated from the site prior to controlled discharge at greenfield runoff rates.

Potential operational phase impacts are noted below:

- Accidental hydrocarbon leaks and subsequent discharge into piped surface water drainage network (e.g. along roads).
- Increased impermeable surface area may reduce local ground water recharge and potentially increase surface water runoff (if not attenuated to greenfield runoff rate).

Implementation of the mitigation measures described under section 7.7 will prevent and minimize the potential impacts of this interaction.

Air & Climate:

At construction phase, it is predicted that fossil fuel combustion gas emissions including carbon dioxide, sulphur dioxide, nitrogen oxides, carbon monoxide and hydrocarbon particulate emissions will be minor and ongoing for the construction phase of the development and will not have a significant adverse impact on the existing ambient air quality in the vicinity of the site. The air dispersion modelling concluded that the construction phase is likely to result in a short-term increase in Nitrogen Dioxide (NO_2) concentrations in the locality. The results determine that there may be an 'imperceptible' and 'small' increases in concentrations of Nitrogen Dioxide (NO_2) at the worst-case receptors assessed when compared with 'Do Nothing' levels; with the highest predicted increase of 0.7 µg/m3 measured at R5 in the Opening Year and the highest predicted increase of 0.83 µg/m3 at R1 in the Design Year 'Do Something' scenarios. However, this increase in traffic has been determined to have an overall insignificant impact in terms of local air quality. Furthermore, the increase in traffic has been determined as marginal with regard to climatic impacts. Therefore, no residual significant impacts are anticipated from the Proposed Development in the context of air quality and climate.

Increased light good vehicles and heavy goods vehicles traffic flow as a result of the proposed development is likely to contribute to increases in greenhouse emissions such as carbon dioxide and nitrous oxide (N_2O). However, these contributions are likely to be marginal in terms of overall national greenhouse gas emission estimates and Ireland's obligations under the Paris Agreement, and therefore unlikely to have an adverse effect on climate.

The Contractor will seek to achieve the greatest standards of sustainable construction and design and will incorporate sustainable design criteria from the outset which supports overall climate change mitigation.

At operational phase, the Proposed Development will be required to minimise overall energy use and to incorporate an adequate proportion of renewable energy in accordance with Building Regulations Part L 2021, Conservation of Energy and Fuel.

Noise & Vibration:

The design evolution has at all times taken account of the potential impact on adjoining landowners and properties. While the layout has changed through the various designs, the separation distance has remained the same and therefor any potential impact has not changed through the design evolution.

Landscape & Visual Impact:

As outlined above, the design evolution has taken key ecological factors into account in preparation of the proposed final scheme. It is acknowledged that due to the existing greenfield nature of the site, and the emerging urban form, initially the development may create minor negative visual impacts. However, the extent of these impacts to human beings, and most importantly to the existing ecology, water and hydrology of the area have been minimised through the design and layout proposed herein.

Transport & Access:

The design evolution of the proposed development site provides a benefit to potential future vehicle users of the site. Designing the internal road network to form clusters rather than long expanses of road both internally and around the development, will create a safer environment for a residential area which will encourage slower vehicle speeds and heighten safety awareness for residents. It is considered that the principle of road network on the subject lands has not varied greatly throughout the project design stages.

Material Assets:

It is considered that the overall quantum and location of development on the subject lands has not varied greatly throughout the project design stages. The development lands are greenfield , mostly agricultural in nature. It is considered that as the quantum of development has remained at a similar scale throughout the various design iterations that the impacts on planting, natural resources, water services. transport, tourism, municipal waste and electricity supply would remain the same. An examination of the impact of the scheme on material assets is provided in Chapter 15.

Archaeology, Architecture & Cultural Heritage:

Each iteration of the design and layout for this proposed development has fundamentally been influenced by the presence of recorded archaeological and cultural heritage sites at the subject site and surrounding areas.

Following the completion of all mitigation measures, there will be no significant residual impacts upon the archaeological, architectural or cultural heritage resource. As the general site layout for this scheme remained consistent in principle throughout the various design iterations, however, buffer zones of archaeological are have been increased as requested by the MCC in the S247.

Therefore, it is considered that the resultant impact on archaeological or cultural heritage features on or surrounding the site has been slightly improved throughout the design phases.

5 POPULATION AND HUMAN HEALTH

5.1 Expertise

This chapter of EIAR has been prepared by Katarina Kanevova, planner, who completed her Master's Degree in Spatial Planning at Slovak University of Technology in Bratislava, Slovakia in 2010. Following her studies she worked in forward planning, specialised on land-use planning projects in Slovakia. Her main focus after moving to Ireland is on residential development. Katarina is a Corporate Member of the Irish Planning Institute.

5.2 Introduction

This chapter has been produced to assess the likely impacts associated with Human Health for the proposed development. In Accordance with the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2022), Draft Advice Notes for Preparing Environmental Impact Statements (EPA 2015) and European Commission Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU 2017). This chapter considers the "existence, activities and health of people", with respect to "topics which are manifested in the environment such as employment and housing areas, amenities, extended infrastructure or resource utilisation and associated emissions".

Human beings and their well-being are a central consideration in assessing the environment. Any likely change in environmental conditions, which will impact the quality of life for human beings, must therefore be comprehensively addressed.

Impacts upon humans may derive from any number of the environmental parameters discussed throughout this EIAR. Ultimately, all development impacts upon the environment to some extent and upon human beings and their quality of life. Direct effects relate to matters such as water and air quality, noise, and landscape change. Indirect effects relate to matters such as flora and fauna.

This section of the Environmental Impact Assessment Report focuses upon the human environment proximate to the proposed development in terms of population profile; employment; land use and social patterns; human health and traffic congestion.

Impact on humans arising from other issues such as natural hazards, soils, geology and hydrogeology, water, air quality, noise, vibration traffic and landscape are assessed in the following EIAR chapters:

- Chapter 6 – Land, Soils, Geology and Hydrogeology
- Chapter 7- Hydrology
- Chapter 10 – Noise and Vibration
- Chapter 11 – Landscape Visual Impact Assessment
- Chapter 13 – Traffic and Transport

5.3 Methodology

In accordance with the EPA Guidelines (EPA 2022) this chapter has considered that:

> *"In an EIAR, the assessment of impacts on population and human health should refer to the assessment of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g under the environmental factors of air, water, soil, etc. The Advice Notes provide further discussion of how this can be addressed".*

As per Article 3 of the Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU:

1. The environmental impact shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:
    i. *Population and Human Health*
    ii. *Biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC*
    iii. *Land, soil, water, air and climate*
    iv. *Material assets, cultural heritage, and the landscape*
    v. *The interactions referred to in the factors referred to in points (i) to iv)*
2. The effects referred to in paragraph 1 on the factors set out therein include the expected effects deriving from the vulnerability of the project to risks of major accidents and/ or disasters that are relevant to the project concerned.

The 2017 publication by the European Commission (EC), *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report*, considered that:

Human Health is a very broad factor that would be highly Project dependant. The notion of human health should be considered in the context of other factors in Article 3(1) of the EIA directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise and pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation, and decommissioning of a project in relation to workers on the Project and surrounding population'.

This chapter follows these EC guidelines and will examine the health effects relevant to the proposed development as they relate to a relevant, defined study area. The effects of the proposed development on the population and human health are analysed in compliance with the requirements of the EPA guidelines.

5.4 Assessment of Significance & Sensitivity

The assessment of significance is a professional appraisal based on the sensitivity of the receptor and the magnitude of impact of any potential effect. The sensitivity of individuals in an area will vary on a case-by-case basis and must be assessed accordingly. It would be unrepresentative to classify an entire population as 'low sensitivity' so for this assessment it is assumed that the receiving population is of a consistent high sensitivity to effectively properly assess the impact of the development on human health and population, using a precautionary principle.

5.5 Population

5.5.1 Receiving Environment

This section describes the receiving environment in terms of existing context, character, significance, and sensitivity which forms the baseline for further assessment.

Population Trends for the Local Area

The Central Statistics Office (CSO) provides data on population and socio-economic aspects of the population at a State, County and Electoral District level. The subject site falls with the 'Dunboyne' Electoral Division (ED) and within the administrative area of Meath County Council. The most recent census of population was undertaken by the CSO in 2022.

It was considered that a catchment area of 3km was appropriate to encapsulate the relevant population surrounding the site.

Demographic Trends for the defined catchment areas were reviewed based on the Census 2016 data for the Dublin County area and Small Area Population Statistics (SAPs) for the District Electoral Divisions (DEDs) of Dunboyne (subject site location), Blanchardstown-Blakestown, Blanchardstown-Tyrellstown, The Ward & Donaghmore.

Figure 5.1 - Electoral Division map of subject area

CSO population statistics for the electoral division in which the subject site is located and other surrounding electoral divisions relevant to the subject site are summarised below. The population of the subject electoral division and surrounding electoral divisions in 2011, 2016 and 2022, the actual change in population and percentage change in population are highlighted in table 5.1 below.

DED	2011	2016	2022	Actual Change	% Change
Dunboyne	9,578	10,094	10,698	+ 1,120	11.6%

Blanchardstown - Tyrellstown	2,112	3,257	3,343	+ 1,231	58.2%
Blanchardstown - Blakestown	36,057	38,894	43,905	+ 7,848	21.7%
The Ward	8,241	9,602	13,289	+ 5,048	61.2%
Donaghmore	10,994	11,758	14,217	+ 3,223	29.3%

Table 5.1 - Population Evolution in Electoral District Areas (Source: CSO 2016)

The official census data for 2022 indicates a 11.6% (1,120 persons) increase in the Electoral Division of Dunboyne, in which the subject site is located, between the years of 2011 and 2022.

The overall change in population in the examined Electoral Divisions of Dunboyne, Blanchardstown-Blakestown, Blanchardstown-Tyrellstown, The Ward and Donaghmore between the years of 2011 and 2022 was an increase of 18,470 persons or 27.5%.

With a consistently rising demand for housing in Meath, population figures are envisaged to increase across most DEDs within the county in the next decade.

Furthermore, although the 2022 Census of Population shows that the State population has only experienced a growth rate of 8 per cent from 2016 to 2022, these results are indicative of the current trend towards migration.

As the economy recovers, a reversal in this trend is anticipated. There remains strong population growth and housing demand throughout the country. The examined Electoral Divisions around the Dunboyne area have consistently shown population growth and housing demand.

Age Profile

A review of the Dunboyne, Blanchardstown-Blakestown, Blanchardstown-Tyrellstown, The Ward and Donaghmore age profiles confirmed that communities in the electoral division in which the subject site is located, and surrounding electoral divisions have an age profile that is generally weighted towards a young to middle aged population group. This can be attributed to the growing trend of new residential development in the Dunboyne area which gives younger people an opportunity to purchase a home at lower prices than Irelands larger cities. The young population located in Dunboyne has made it a key growth centre for continued residential development given it is a suburb of Dublin.

The most prevalent age profiles for each of the electoral divisions examined as part of this population review is outlined as follows:

- Dunboyne: 35-39
- Blanchardstown-Blakestown: 40-44
- Blanchardstown-Tyrellstown: 15-19
- The Ward: 40-44
- Donaghmore: 40-44

Population pyramids representing the percentage of population per age bracket as per the 2022 Census are presented below for the convenience of the Planning Authority:

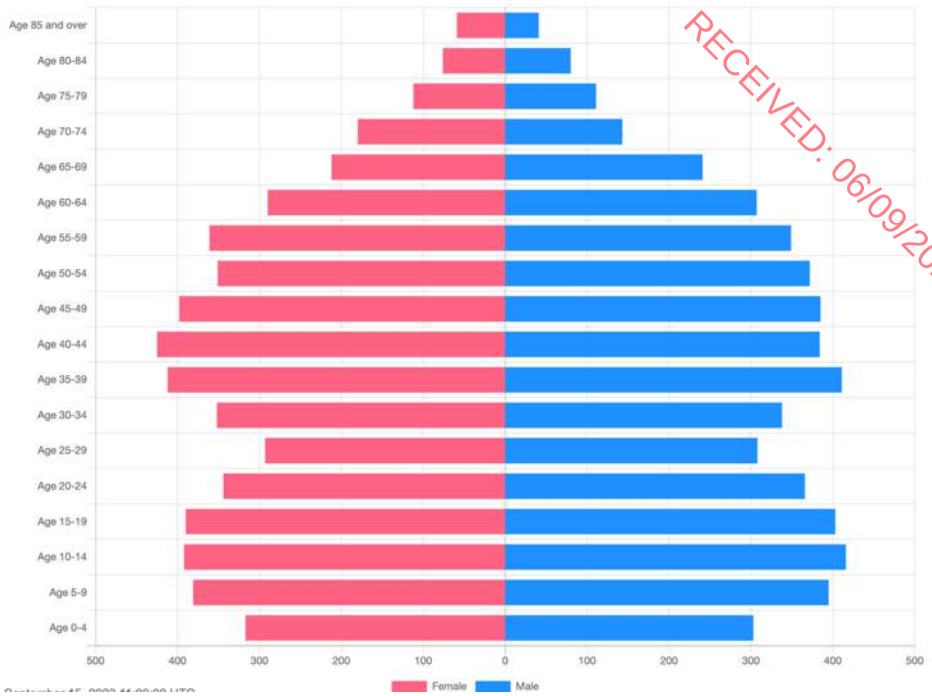


Figure 5.2 - Electoral Division 'Dunboyne' population profile by sex and age group (Source: CSO 2022)

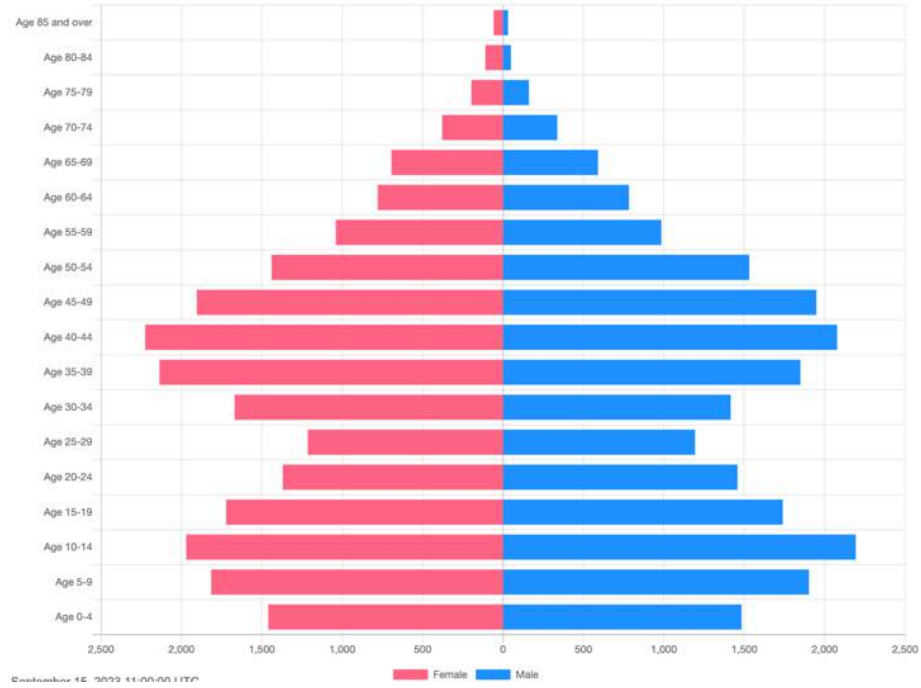


Figure 5.3 - Electoral Division 'Blanchardstown-Blakestown' population profile by sex and age group (Source: CSO 2022)

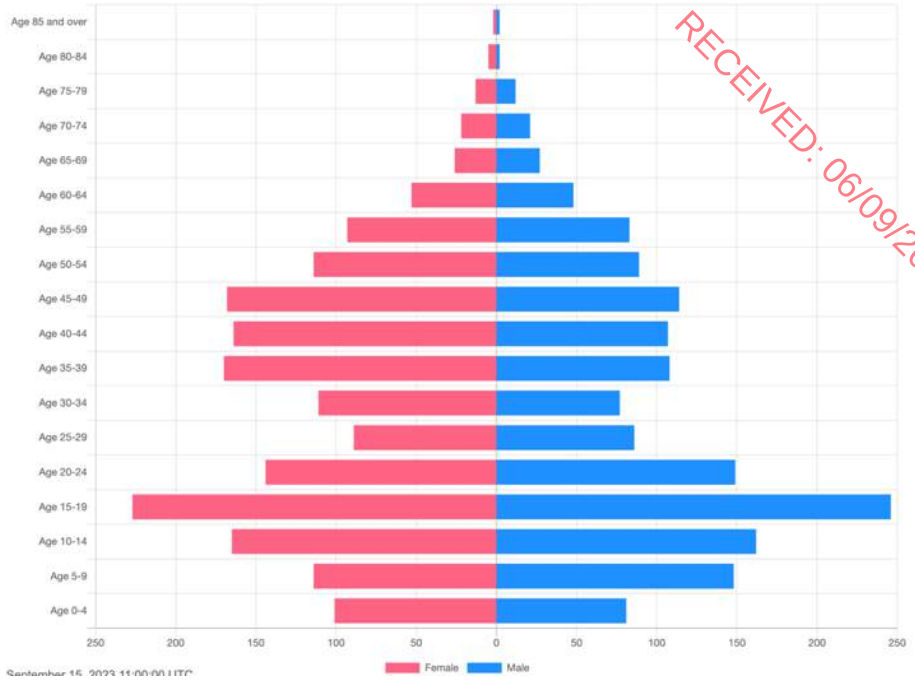


Figure 5.4 - Electoral Division 'Blanchardstown-Tyrellstown' population profile by sex and age group (Source: CSO 2022)

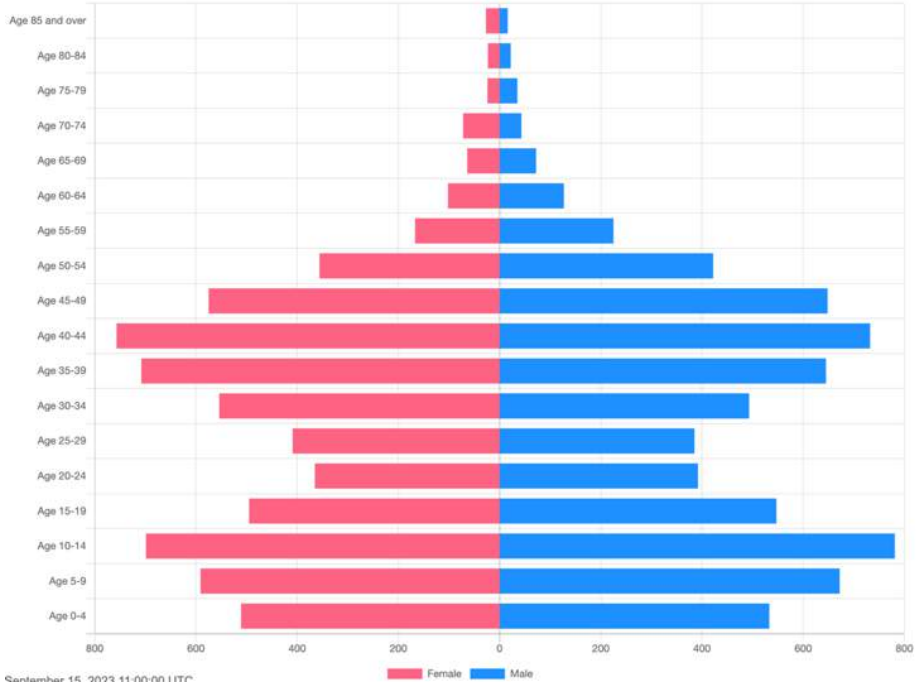


Figure 5.5- Electoral Division 'The Ward' population profile by sex and age group (Source: CSO 2022)

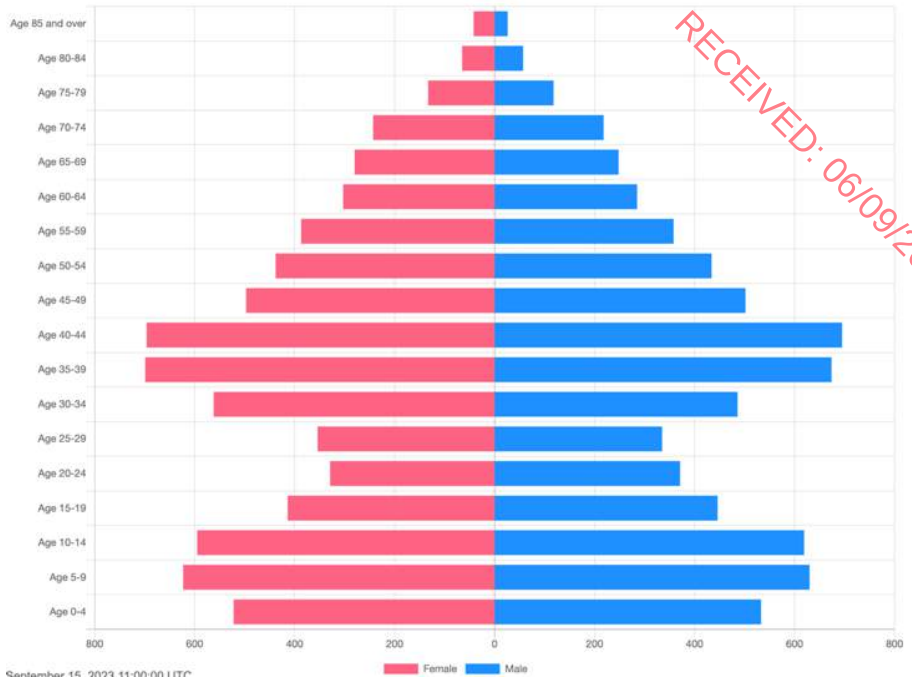


Figure 5.6 - Electoral Division 'Donaghmore' population profile by sex and age group (Source: CSO 2022)

Accommodation – Household Size

In accordance with official CSO 2022 figures, the average household size in Ireland is 2.74, which declined slightly from 2.75 in 2016. From examining the 5-no. surrounding electoral divisions to the subject site, it is concluded that the average household size in the areas surrounding the subject lands is 3.3, falling above the national average.

The predominant household size in the Dunboyne area, where the subject site is located, was 4 persons. The predominant household size in all other electoral divisions was also 4 persons.

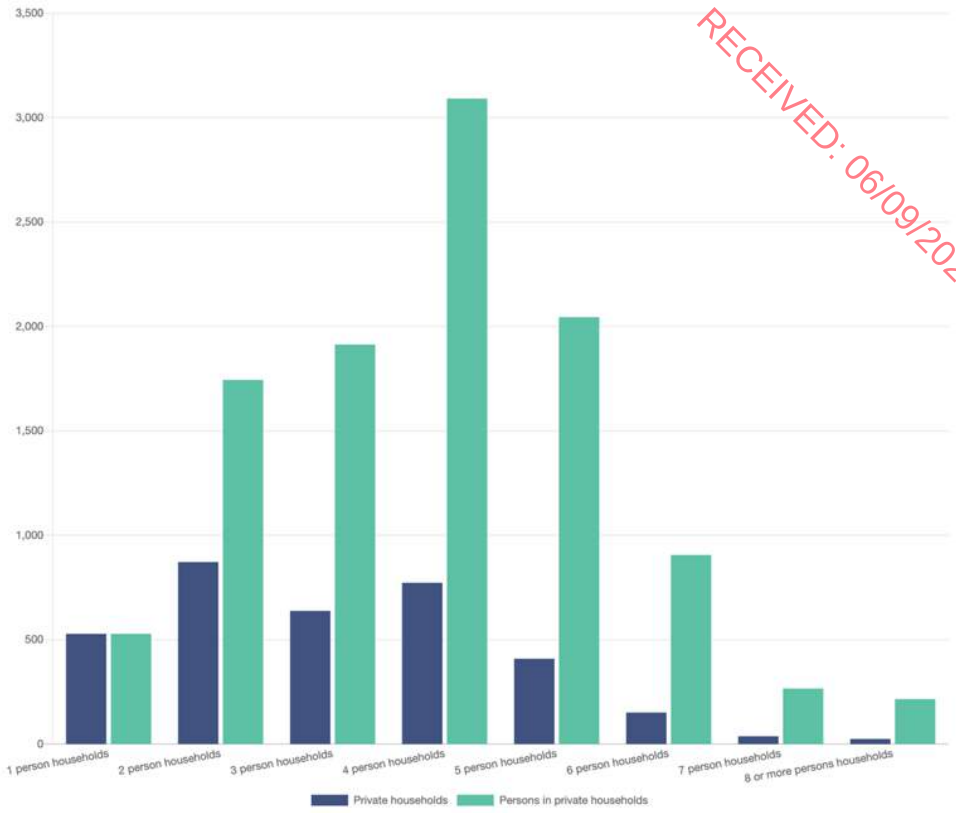


Figure 5.7 - Percentages of the different household sizes in the 'Dunboyne' ED CSO 2022

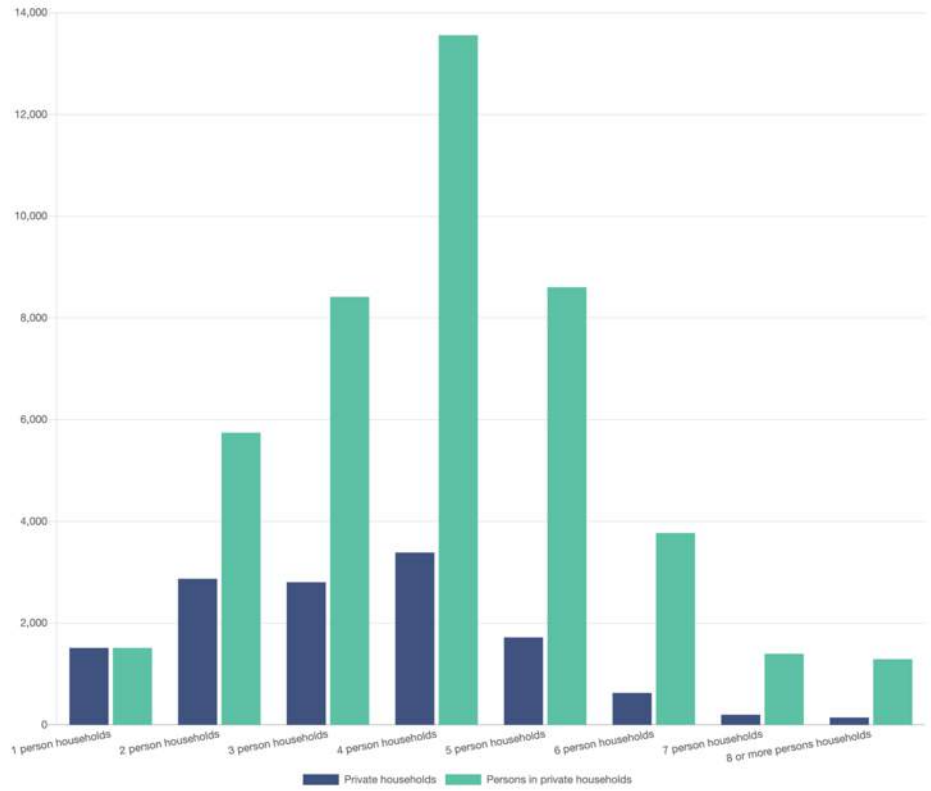


Figure 5.8 - Percentages of the different household sizes in the 'Blanchardstown-Blakestown' ED CSO 2022

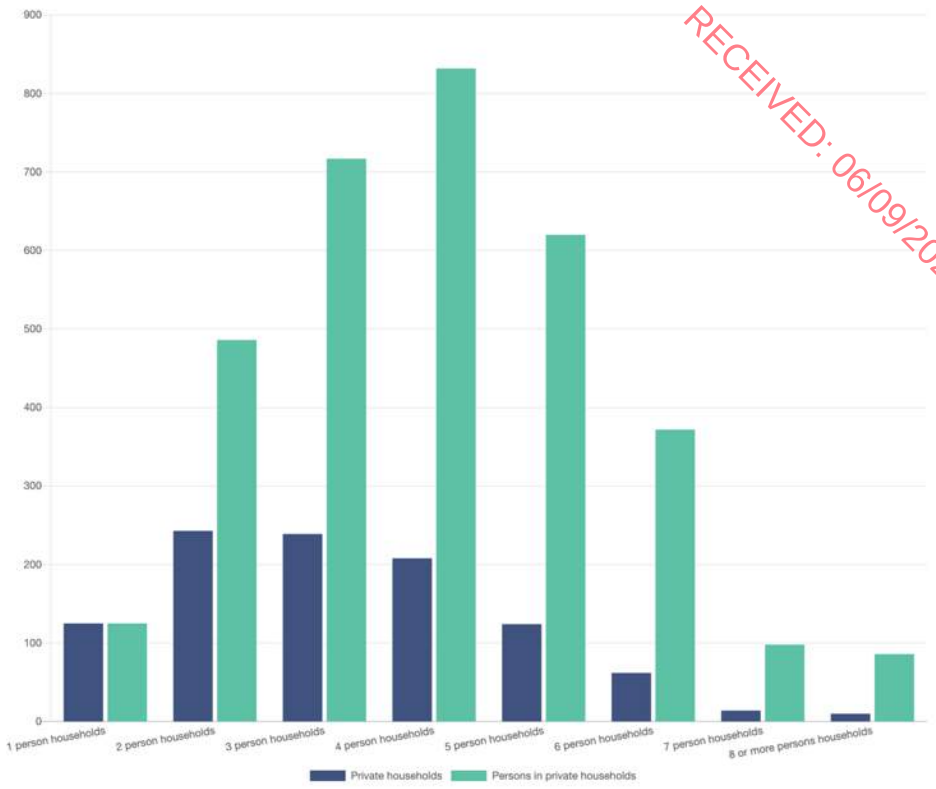


Figure 5.9 - Percentages of the different household sizes in the 'Blanchardstown-Tyrellstown' ED CSO 2022

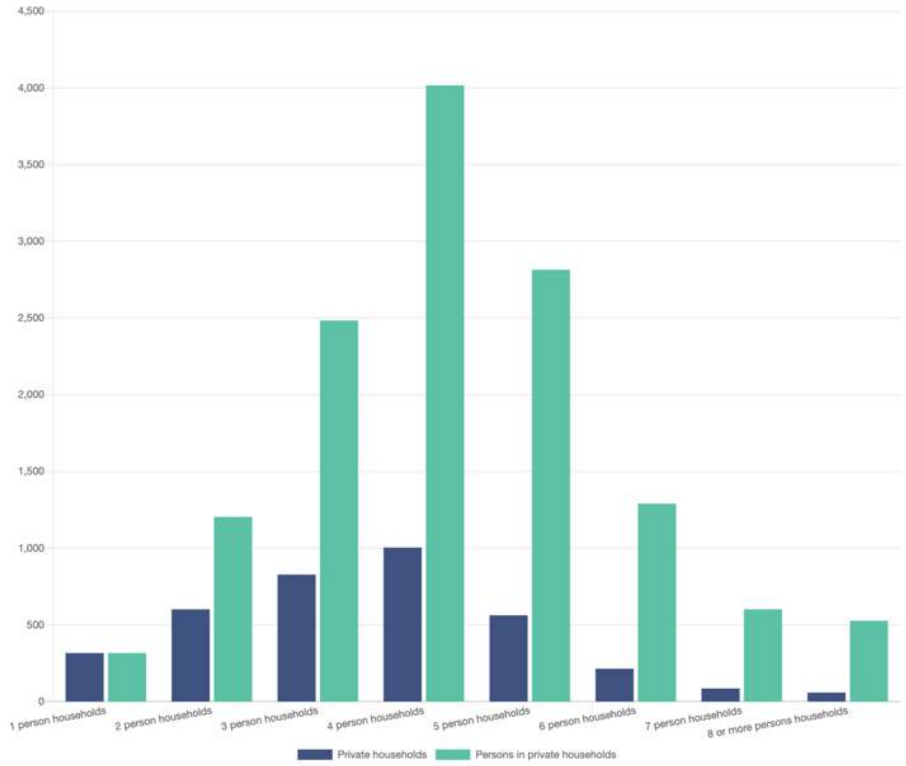


Figure 5.10 - Percentages of the different household sizes in the 'The Ward' ED CSO 2022

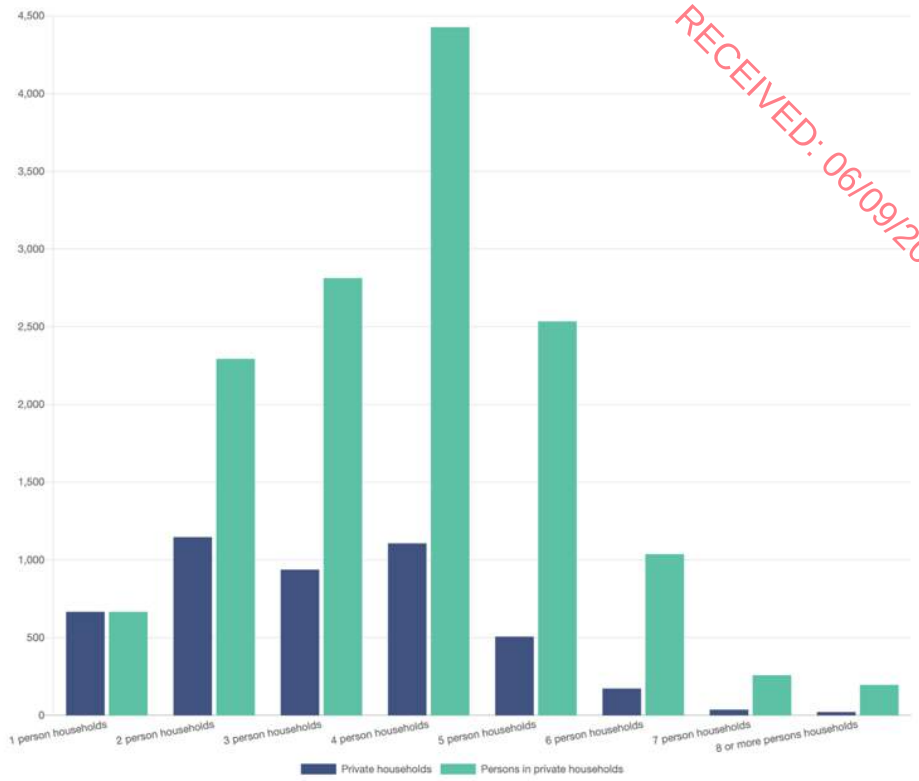


Figure 5.11 - Percentages of the different household sizes in the 'Donaghmore' ED CSO 2022

From the above analysis of Household Size across the Dunboyne, Blanchardstown-Blakestown, Blanchardstown-Tyrellstown, The Ward and Donaghmore electoral divisions, it is noted that the largest cohort of people per household across the 5 examined electoral divisions is 4. It is noted that three person and five person households are also prevalent within the electoral divisions examined.

From the above data, the average number of people per household across each of the examined electoral divisions was calculated by dividing the total population of each electoral division by the total number of occupied households in each. That withstanding, the average number of people per household across the electoral divisions was calculated as follows:

- Dunboyne: 3.3
- Blanchardstown-Blakestown: 3.3
- Blanchardstown-Tyrellstown: 3.2
- The Ward: 3.6
- Donaghmore: 3.0

The above average household sizes per electoral divisions can be calculated in combination to present an average household size across the 5-no. examined electoral divisions of **3.28.**

Whilst we acknowledge the above figures, which clearly state that nearly one third of the households in the examined electoral divisions surrounding the subject site comprises of 4 person households, we will apply the average household size of 3.28 across the 5-no. examined electoral divisions within the Planning Report as an average household size projected for subsequent applications following the subject proposal.

5.5.2 Characteristics of the Proposal

The proposed development will comprise a mix of medium and high - density residential development (55.3 units per hectare in total on appropriately zoned lands, 116.5 units per hectare in the Gateway Hub) and a construction of a section of the Eastern Distributor Road. As outlined above, it is envisaged that the proposed development will generate a total population of c. 2576 persons. As such, the layout and design of the proposal reflects the need for high quality public and private spaces. The relationship between the public and private realms has been dealt with in a sensitive manner with the provision of a public open space area which includes 23,925 sqm of public open space, 6,279 sqm of communal open space area. The proposed development also includes a proposed café (approx. 196sqm) with associated outdoor seating area, medical unit 1 (197 sqm), retail unit 2 (approx. 217 sqm), retail unit 3 (approx. 170 sqm), community room (approx. 52 sqm), 2 no. creche facilities (approx. 394 sq m and approx. 400 sqm)

For a detailed development description we refer to Chapter 2;

5.5.3 Potential Impact of the Proposal

Construction Phase

The construction phase has no potential impact on the existing population of the area, given that it will be a finite process and it is expected that the workforce will travel from its existing place of residence rather than staying in temporary accommodation in the area.

The construction phase of this development will have a short term positive impact on Dunboyne as population will temporarily increase day to day due to workers being present on site. This will have a short term positive impact on the local economy of Dunboyne. Short term negative impacts on human health will be caused by, noise and traffic increases during the construction phase.

Operational Phase

The development will add to the existing population of the area by c. 2576 persons and will increase and improve the housing stock. It is expected that the development will have a permanent positive impact on the demography and economic future of the area, and its ability to support related infrastructure and services.

Do-Nothing Impact

It is anticipated that the 'do-nothing' approach would result in the stagnation of development in the area. The overall development lands at Station Road have been earmarked for residential development for circa 15 years and are currently zoned for the provision of new residential development and open space provision as per the Meath County Development Plan 2021-2027, which offers the most recent statutory zoning context for the site.

It is considered that the that planned development of the eastern distributor road and subsequent residential dwellings and open space, proposed by way of this application at Dunboyne is of paramount importance, thus, to adopt the 'do-nothing' approach would adversely affect these objectives.

5.5.4 Remedial and Reductive Measures

Construction Phase

The construction phase of the proposed development is unlikely to generate any significant adverse impact on the demography of the area and is more likely to have a positive economic impact as any construction workers on site will likely be in Dunboyne on a temporary basis, spend money within the local community and then leave Dunboyne when the construction phase has been completed. As such, no remedial or reductive measures are considered necessary. Any impacts on the community in the area are considered elsewhere in Section 5.5 of this Environmental Impact Assessment Report.

Operational Phase

No remedial or reductive measures are considered necessary during the operational phase. The proposed development will provide residential development in a sustainable manner.

5.5.5 Predicted Impact of the Proposal

Construction Phase

It is not envisaged that any increase in population will occur during the construction phase. The proposed development is likely to generate additional income for existing shops and services.

Operational Phase

As outlined previously, the proposed development will result in an increase in population. This represents a beneficial impact for the area within the examined electoral districts and is entirely compatible with the residential policies and objectives of Meath County Council as outlined in the County Development Plan 2021-2027.

Worst Case Impact

The failure of the proposed development to proceed will not lead to any adverse impacts on the existing population of the area. However, it would impede the planned growth in the area as per the relevant statutory national and local planning documents.

5.6 Employment and Land Use

5.6.1 Receiving Environment

<u>Employment</u>

Based on the International Labour Organization (ILO) criteria, it is observed that there were 2,657,900 people in employment in Ireland in Q3 2023, giving an employment rate of 74.1%.

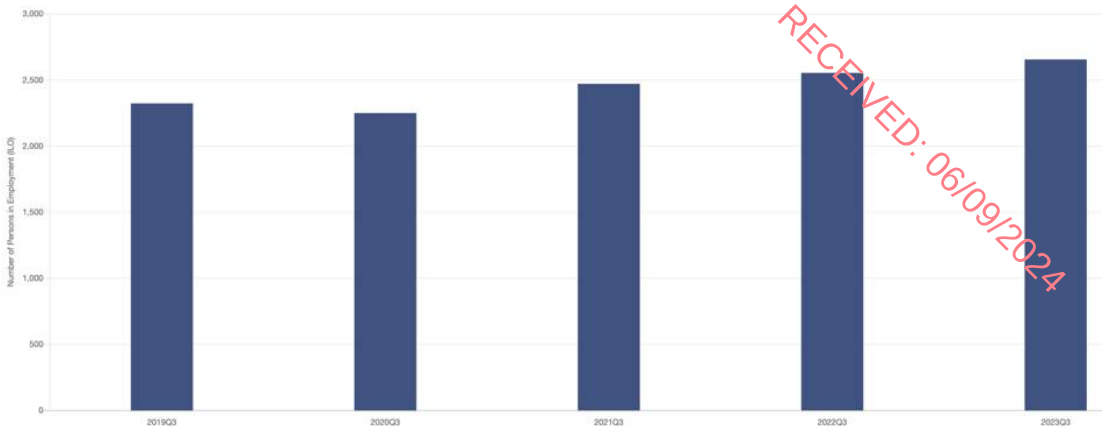


Figure 5.12: Number of persons aged 15 - 89 years in employment, 2019-2023

Employment Status

There were 2.6 million people at work in Q3 2023, 86% of whom were employees. The number of self-employed workers fell since 2016 and accounted for 13% of workers in 2023.

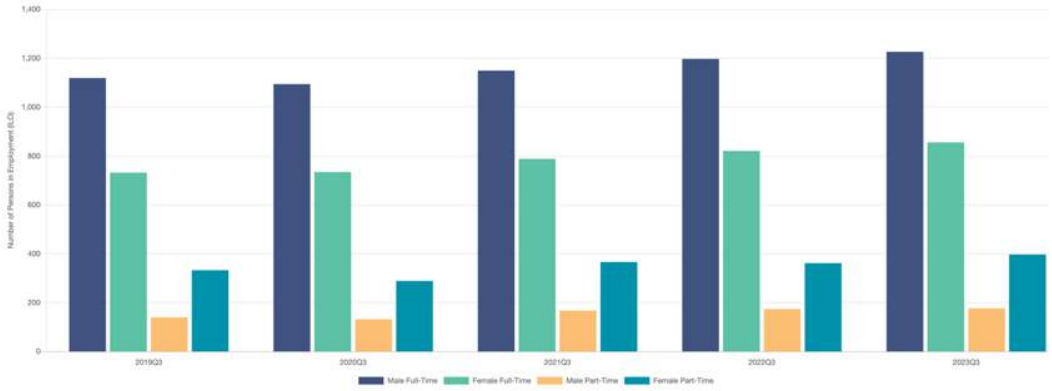


Figure 5.13: Persons aged 15+ full-time/part-time status, 2019-2023

Overall, the number of self employed workers decreased from 341,000 in Q2 2022 to 338,000 in Q3 2023, while the number of employees increased from 1,192,000 in Q2 2022 to 2,287,000 in Q3 2023.

Unemployment

To establish a more balanced picture of the employment situation it is necessary to also examine trends in unemployment in Ireland over a comparable timeframe. The most pertinent figures in relation to unemployment are the CSO Labour Force Surveys, which are published on a national level.

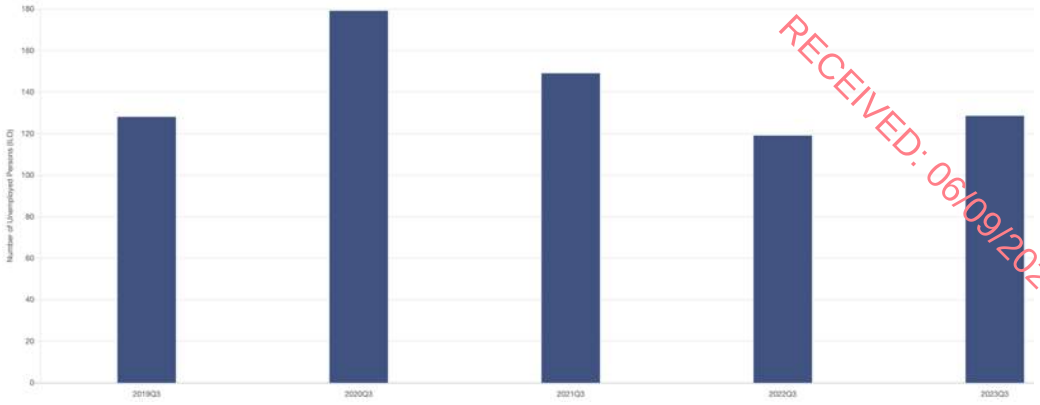


Figure 5.14: Unemployment rate (ILO), (Q3 2019 – Q3 2023)

The number of persons aged 15-74 years who were unemployed increased from 119,100 to 128,600 between Q3 2022 and Q3 2023, using standard International Labour Organisation (ILO) criteria.

Employment - Conclusion

In accordance with Development Plan policy, there is an identified need to accommodate future generations within Dunboyne with the proper planning and development of new neighbourhoods. It envisages that a certain level of local employment will arise from the increase in population and the associated increase in employment opportunities. It is considered that the proposed development will lead to an increasingly positive effect on employment in the local community.

Land Use - Existing Retail Provision

A review of the surrounding area confirms that there is an existing convenience retail offering in the area surrounding the site. There are a number of supermarket offerings located within and on the periphery of Dunboyne to the west of the development site as follows:

- Supervalu, Dunboyne
- Eurospar, Dunboyne
- Circle K
- Nearby, Dunboyne

Retail Provision – Conclusion

It is concluded that there are sufficient retail facilities in the area to cater for the scheme. There is an array of supermarket and local shops in the vicinity of the proposed development that the future residents of the area will avail of. The subject development will add to this provision of retail facilities. A café (approx. 196sqm) with associated outdoor seating area, retail unit 2 (approx. 217 sqm), retail unit 3 (approx. 170 sqm) are proposed within the Gateway Hub.

5.6.2 Characteristics of the Proposal

The new resident population will provide an increased market for the local shops and services and may result in the creation of employment opportunities to cater for this increased demand for goods and services. The following proposed non-residential units

will contribute towards additional employment opportunities will be provided within the subject development:

- café (approx. 196sqm)
- medical unit 1 (197 sqm)
- retail unit 2 (approx. 217 sqm)
- retail unit 3 (approx. 170 sqm)
- community room (approx. 52 sqm)
- 2 no. creche facilities (approx. 394 sq m and approx. 400 sqm)

5.6.3 Potential Impact of the Proposal

Construction Phase

As previously noted, the site is zoned for residential uses, thus the proposal is deemed to be an acceptable form of development. Direct and indirect employment will be generated as a result of the development during the construction phase.

Operational Phase

The increase in population that will result from the subject development and the overall development of the subject lands has the potential to bring increased job security to existing jobs in the vicinity and will also help to stimulate the local economy by creating an increased demand for services which will lead to job creation.

Do-Nothing Impact

In this instance a 'do-nothing' impact would result in the loss of considerable direct and indirect economic and social benefits.

5.6.4 Remedial and Reductive Measures

The proposed development will be entirely beneficial in employment terms, and no remedial or reductive measures are considered necessary.

5.6.5 Predicted Impact of the Proposal

Construction Phase

The proposed development will provide important construction and related employment. In addition to the direct financial and employment benefits of the construction programme itself, it is anticipated that builders' suppliers and other related services would benefit significantly during the construction period.

Overall, the construction programme of the proposed development will be of significant benefit to the local and wider economy, due to the income and increased expenditure that will result.

Operational Phase

When the future residential dwellings of the subsequent development schemes are inhabited, there will be considerable scope for the contracting and purchasing of local goods, supplies and services in the area. This multiplier effect can be expected to generate and support additional employment and expenditure in the local economy to the benefit of local businesses. Limited number of jobs will be created by provision of non-residential uses.

Worst Case Impact

As the proposal would have no profound or irreversible adverse consequences in relation to employment, a 'worst case' impact is not applicable in this instance.

5.7 Land Use and Social Patterns

5.7.1 Receiving Environment - Land Use

An analysis of the existing community facilities within the area surrounding the overall development lands at Station Road, Dunboyne, Co. Meath is included within the supporting Community and Social Infrastructure Statement document, which should be read in conjunction with this EIAR. It is noted that while the Social

Educational Facilities Summary

There are 4 no. primary schools and 1 no. post-primary school operating in the study area. These facilities cater to a student population of c. 1,401 for primary schools and c. 1,220 for post-primary schools.

It is noted that there will be a primary/secondary place demand arising from the subject application with a total number of units on these lands of approx. **853** units. The schools places demand for children aged 5-19 will be as follows:

853 x 3.3 (Average household size)

= 2815 total population x 23%

= 647 no. children between 5-19.

Given that the ages of children(5-19) in the Dunboyne ED are as follows:

- 15.5% of population would attend primary school
- 7.5% of population would attend secondary school

It is predicted that the demand for school places for primary and secondary schools arising from the subsequent developments (approx. 1200 residential units) are as follows:

- Primary School: 436 no. spaces
- Secondary School: 211 no. spaces

In general, enrolment figures for both Primary and Post-Primary schools are set to decline in the long term, which suggests a corresponding increase in existing capacity within schools over time within the catchment area. With the exception of post-primary schools which is projected to peak in the 2024/2025 academic year and subsequently decrease thereafter.

Pedestrians links and public transport to existing schools are readily accessible by the school going population envisaged for this development.

Additional permeability link including a railway overbridge is currently in design stage. For more details we refer to the Planning Report prepared by BMC.

Subject to a grant of permission from Meath County Council, and no appeal being lodged by same, it is expected that the proposed development could commence in 2025.

Allowing for approx. 9–10-year construction programme it is unlikely that the proposed development would reach full residential occupancy before 2034.

Cumulative effects of another LRD applications being prepared or lodged within the same catchment area are acknowledged.

Therefore, the demand would have an impact on local schools' infrastructure within the catchment area of the proposed development.

It has been outlined how the various schools contained within a 5km+ vicinity is reachable by means of public transport in this report. Despite it the proposed increase of population will require new school facilities, both primary and post-primary. The Development Plan identifies Dunboyne as one of the areas are likely to require additional school facilities/ reservation of sites over the plan period. It is a policy of the Development Plan to deliver these.

Furthermore, the Applicant engaged with the Department of Education in this regard.

The Department has confirmed that due to current demographic trends and limited residential development in the past, the school place demand generated by this proposed development is likely to be catered for in the existing schools in the short to medium term.

In the long term, the applicant is open to a discussion about accommodation a future school facility on lands currently under their ownership but outside of the application boundary. This proposal would require a rezoning of existing unzoned lands to support an educational use, however, we can confirm our client is open to any discussions that may be required in this regard.

It is considered that there is a clear demand for educational facilities to be expanded in Dunboyne as per the current development plan. The current plan identifies these lands east of the subject site. Therefore, once developed, the subject residential units will have direct access to the educational facility identified for development here. These lands can be seen below.

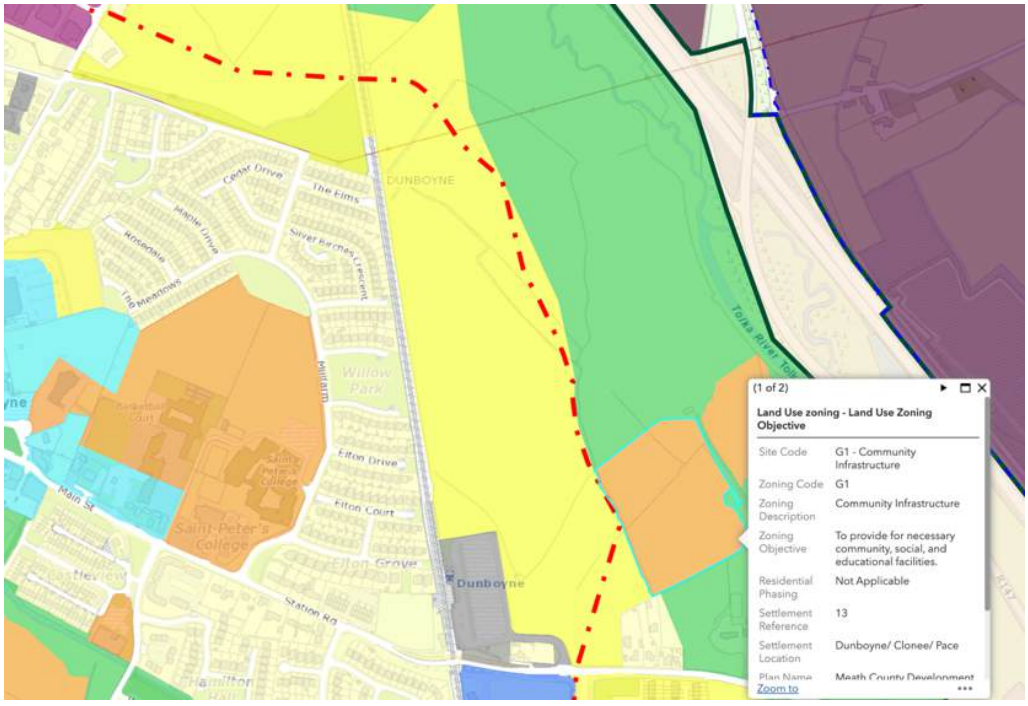


Figure 5.15: 'GI – Community Infrastructure' Zoned Lands to the east if the subject site

Childcare Facilities

It is noted that the following facilities are also located within the vicinity of the overall development lands:

- Little Explorers Creche
- Avondale Playgroup
- Little Scholars Creche
- The ABC Club
- Kidology Childcare

In addition, there are 2 no. childcare facilities (c. 394 sqm and c. 400 sqm) proposed within the subject development.

It is submitted that the subject development will generate a demand for 152 childcare spaces which can be catered within the proposed facilities.

Further Education

A review of the surrounding area has confirmed the following provision of facilities:

Further and adult education centres

- Dunboyne College of Further Education (DCFE)

Further Education Summary

There is one third level institute within 3km of the subject site. Dunboyne College of Further Education (DCFE) which has grown from 40 students in 2003 to over 1000 students in 2020.

The location of Dunboyne on the Dublin- Sligo rail line means that 3rd level educational facilities in Dublin and Maynooth are easily accessible if commuting.

It is apparent from our review of further education facilities, that there is an appropriate provision within the surrounding area to serve the proposed development. It is our considered view that there is no requirement arising from the current proposal for the provision of additional facilities within the immediate context.

We trust that this will be satisfactory to the Planning Authority.

Retail Facilities

A review of the surrounding area has confirmed the following provision of retail:

- Dunboyne Town Centre
- Clonee Retail Core
- Avoca, Dunboyne

Retail Summary

There is a relative offering of retail outlets within 3Km subject site.

There are 3 no. retail/shopping areas located within 3km of the proposed development that offer convenience stores, clothing and speciality stores as well as services such as hairdressers, barbers and beauty salons. It is also noted that this site is within commuting distance to Dublin City Centre which provides an array of retail outlets.

It is considered that from the above retail facilities listed there is a moderate provision of retail facilities within the surrounding area to provide for the proposed development and subsequent developments. It is our considered view that subsequent planning applications for these lands will include provision of additional facilities within the immediate context.

Community Facilities

A review of the surrounding area has confirmed the following provision of facilities:

Libraries

- Dunboyne Library

Places of Worship

- St. Peter and Paul's Roman Catholic Church
- Dunboyne St Peter & Paul Church of Ireland

Community Centres

- Dunboyne Community Centre
- Oak Centre

Community and Social Facilities Summary

It is apparent from our review of community and social facilities, that there is an appropriate provision within the surrounding area to serve the proposed development and subsequent residential development. In addition to the existing community and social facilities, a community room (52 sqm) is proposed.

Sports Clubs

A review of the surrounding area has confirmed the following provision of facilities:

Gyms

- Verve Gym Dunboyne
- Pro PT Studios
- Core Control Pilates

Sports Clubs

- Dunboyne AFC
- Dunboyne Combat Karate
- Dunboyne Athletics Club
- Inspiration Cycling Club
- Golden Tiger Academy
- Dunboyne Boxing Club
- St. Peter's GAA Dunboyne
- Dunboyne Tennis Club
- Royal Meath Pitch & Putt Club

Sports Centres

- Dunboyne Community Centre

Sports Club Summary

It is apparent from our review of the sports clubs, that there is an appropriate provision within the surrounding area to serve the proposed development. It is our considered view that there is no requirement arising from the current proposal for the provision of additional facilities within the immediate context.

Public Parks

A review of the surrounding area has confirmed the following provision of facilities:

Parks

- Dunboyne Park
- 1916 Garden of Remembrance
- Dunboyne Skatepark
- Dunboyne Playground

Parks Summary

It is apparent from our review of parks, that there is an appropriate provision within the surrounding area to serve the proposed development.

We note however that the applicant is delivering 23,925 sqm of public open space to serve the subject development. This provision meets the 15% requirement on public open space provision and therefore is considered as sufficient.

Health Care

A review of the surrounding area has confirmed the following provision of facilities:

Medical Centres

- The Surgery, Dunboyne
- Dunboyne Health Centre
- Dunboyne Herbal Clinic

Pharmacy

- Conaty's Care Plus
- Your Local pharmacy, Dunboyne
- McElroy's Pharmacy
- Clonee Pharmacy

Health Care Summary

It is apparent from our review of health care facilities, that there is a variety of healthcare facilities. In addition, a medical unit (197 sqm) is proposed within the Gateway Hub in the order to serve the subject development and contribute towards the offering within Dunboyne.

Nursing Homes

- Silver Grove Nursing Home

It is apparent from our review of Nursing homes within 3km of the Subject site that there is an appropriate provision within the surrounding area to serve the proposed development. It is our considered view that there is no requirement arising from the current proposal for the provision of additional facilities within the immediate context.

5.7.2 Characteristics of the Proposal

In addition to the provision of 853 no. dwellings, the applicant proposed to provide a 23,925 sqm public open space area for new residents and the community at large. Details

of the nature of the public open space have been outlined above. Construction of part of the Eastern Distributor Road Road will also impact existing land uses, as follows herein.

We wish to highlight from the outset, that our client is committed to working with the Planning Authority to deliver on a large scale residential development and a portion of the Eastern Distributor Road proposal that is appropriate to the site.

5.7.3 Potential Impact of the Proposal

Construction Phase

The scale of the development will inevitably lead to noticeable impacts during the construction phase. These can largely be summarized as:

- Temporary increase in vehicular traffic
- Temporary increase in noise; dirt; and dust generation
- Temporary increase in employment opportunities

It is expected that short-term adverse impacts will be experienced mainly by the resident and working populations and to a lesser extent by the visiting/tourist community. The adverse impacts being considered here would generally be of a short-term nuisance nature and as such would not affect quality of life for existing residents in the long term.

Operational Phase

A proposal of this nature at the subject site would have the following potential impacts during its operational phase:

- Increase the population of the area
- Increase demand for local resources
- Increase support and demand for local businesses and services
- Increase level of local traffic
- Change the character and appearance of the subject site
- Increase critical mass capable of supporting increased public transport options

The resident community would experience these impacts in several ways. The growth in population of the neighbourhood may exert pressure on existing residential facilities ranging from public service facilities, community and commercial uses and schools. The existing local business community would be expected to receive increased patronage.

The community may experience a change in mobility consequent to increased congestion of the road network or actual physical development.

An alteration to the actual physical environment of the neighbourhood may affect the spatial perceptions of the community living in this area. However, it should also be noted that the increased population resultant from the proposed development will help underpin the viability of existing community, social and recreational facilities as the existing receiving community ages. The proposed development will provide new community, thus adding to the vitality of the existing community.

An increase in the residential and working population would ultimately increase the critical mass of the area and therefore provide a significant support base for the introduction of public transport systems over the longer term.

Do-Nothing Impact

A do-nothing scenario in this case would result in the perceptions of the community remaining unchanged.

5.7.4 Remedial and Reductive Measures

Construction Phase

Possible adverse impacts arising from the construction phase will be mitigated by various strategies. Dust and dirt will be minimised by wheel washing of heavy vehicles and dust will be managed by spraying stockpiles when conditions are dry. It is usual to restrict construction-working hours, including construction traffic, to minimise the impact on nearby noise sensitive locations. The community will be unavoidably aware of the construction phase while it is in progress, but it is expected that any inconvenience will be minimised by the standard building controls.

Operational Phase

The population increase arising from the subject proposal accords with the zoning of the site, the objectives of the relevant local and nation statutory planning and guideline documents. Furthermore, it will add to the sustainability of local businesses and services. As such, no remedial measures are required.

5.7.5 Predicted Impact of the Proposal

Construction Phase

It is likely that any impacts during the construction phase of the subject development proposal will be temporary, mainly affecting the residential community and to a lesser extent, the working and visiting communities of the area. However, with due regard for the remedial and reductive measures proposed during the construction period, the impact of the proposed development on communities in the area will not be significant and any impact will only be short term.

Operational Phase

An increase in demand for local goods and services is likely to occur as a result of the development of residential dwellings. It is expected that the character of the local area would change, resulting in the creation a new vibrant neighbourhood, contributing to the Dunboyne living environment.

Worst Case Impact

The subject proposal will not produce any unacceptable, or irreversible changes in the local community. A worst-case scenario is thus not applicable in this instance.

5.8 Health and Safety

Construction Phase

Dust generated during the construction phase of the project will potentially impact the air quality within the immediate surrounds of the subject site. The most significant impacts are associated with excavation and construction traffic, both of which are dependent upon weather conditions.

A project-specific 'Construction and Environmental Management Plan' (CEMP) will be established and maintained by the contractor. The CEMP will also include a Waste Management Plan, prepared in accordance with the Department of Environment, Community and Local Government guidelines.

No lasting impacts are expected, and temporary impacts will be effectively managed through mitigation measures, in accordance with the CEMP, which will include a specific Dust Minimisation Plan.

Operational Phase

As the proposed development includes construction of the envisaged Distributor Road through the lands, a significant human asset, upon completion there will be significant improvements to traffic and access conditions within Dunboyne. In addition to the above, the proposal will provide additional material assets, including SuDS water infrastructure.

5.9 Traffic Congestion

Construction Phase

The residual impacts of the construction phase are a negative temporary impact upon the road network. It is envisaged that a construction management plan be put in place between the contractor and Meath County Council prior to work commencing.

This will assist with ensuring construction vehicles do not impact on the morning and evening peak periods on the local road network. The residual impacts of the operational phase on traffic will result in a negligible impact upon the surrounding road network. The development flows will not have a material impact upon the operation of the nearby junctions.

Operational Phase

New pedestrian and cycle infrastructure is proposed within the development to promote sustainable travel within the site.

5.10 Interactions

A comprehensive analysis of all identified inter-related potential likely and significant impacts are addressed in specific, subject-based chapters within this EIAR. Overall, the comprehensive environmental assessments undertaken show that the proposed development will not result in any significant adverse effects upon the environment. Mitigation measures are proposed to avoid, remedy, or reduce identified impacts where necessary.

5.11 Monitoring

Measures to avoid negative impacts on population and human health are largely integrated into the overall design of the proposed development. Compliance with the design and layout of the proposal applied for will be a condition of the development if granted. Monitoring will be managed via the Building Regulations certification process and by the specific conditions outlined in any grant of permission. Monitoring for compliance with health and safety requirements will be undertaken by the project supervisor for the construction process.

6 LAND, SOIL, GEOLOGY AND HYDROGEOLOGY

6.1 Introduction

This chapter of the EIAR was prepared by Steven Corroon, CEng, MIEI, PGcert, BEng (Hons), who is a chartered engineer and Senior Civil Engineer at DBFL Consulting Engineers with over 7 years industry experience. The chapter comprises an assessment of the likely impact of a proposed Large-Scale Residential Development (LRD) on the lands, soil and geology as well as identifying proposed mitigation measures to minimise any identified impacts during both the construction stage and operational stage.

6.2 Assessment Methodology

Assessment of the likely impact of the proposed development on land, soils and geology included the following activities:

- Review of information available on the Geological Survey of Ireland (GSI) online mapping service
- Review of information available on the Environmental Protection Agency (EPA) online mapping service
- Causeway Geotech Ground Investigation – Dunboyne Train Station
- DBFL's Infiltration Feasibility Assessment Report 63022-X-00-Z00-XXX-RP-DBFL-CE-0003, submitted with this application

Preliminary Ground Investigations on the site of the proposed residential development and were carried out in May 2019 by Causeway Geotech.

The ground investigation by Causeway Geotech (May 2019) included the following scope of works:

- Visit to the project site to observe existing conditions
- 5 No. Light Cable Percussion boreholes
- 5 No. Standpipe instillation in boreholes
- 5 No. Machine dug Trial Pits to a maximum depth of between 1.5 and 1.6m below ground level (BGL)
- 5 No. Infiltration tests in accordance with BRE Digest 365
- Factual report

6.3 Receiving Environment

General Site Description

The subject development site is located to the east of the Dublin to Dunboyne / M3 Parkway railway line and to the north of the L2228 Station Road corridor. The subject site will be bound to the north and east by the future Dunboyne Eastern Distributor Road (DEDR) corridor, whilst Community Infrastructure zoned lands are also located to the east adjoining the LRD site. Please refer to Figure 6.1 below.

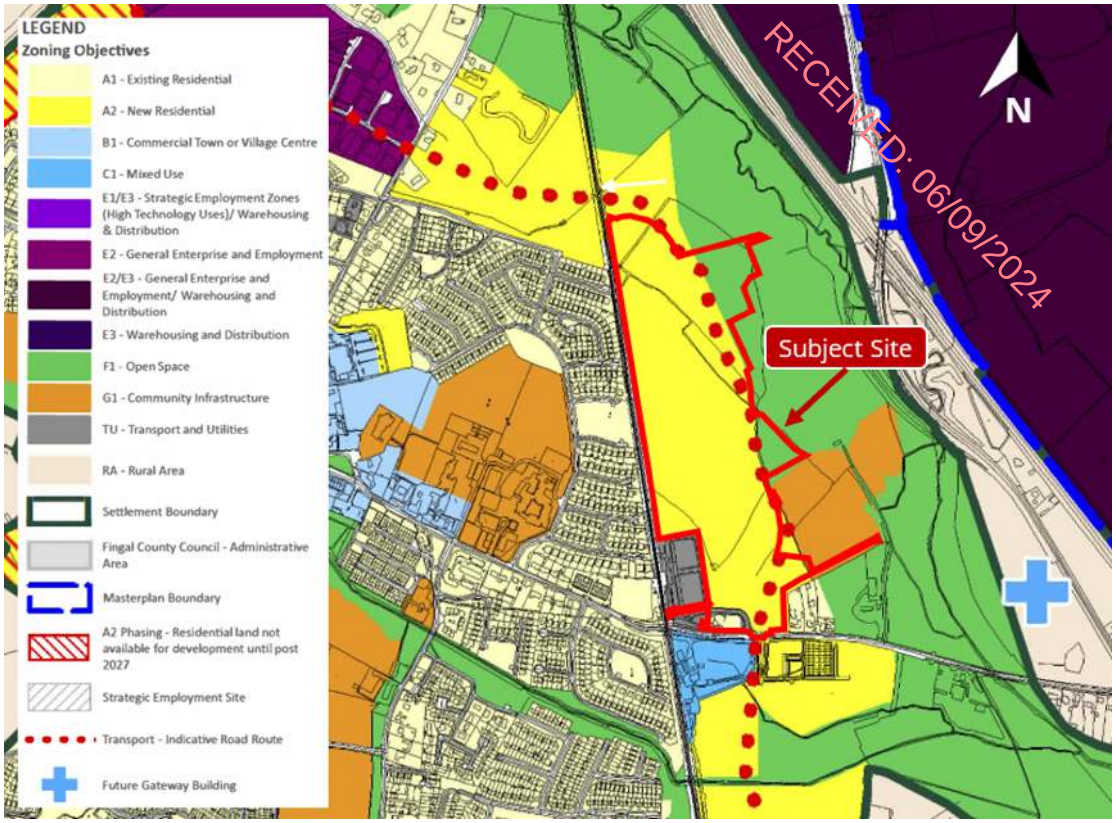


Figure 6.1 – Land Use Zoning Objectives (Source: Meath County Development Plan 2021-2027 Sheet No. 13 (a))

Soils

The site lands are currently undeveloped and can be considered a greenfield site.

Review of information available on the GSI's online mapping service ("Quaternary Sediments") indicate that the site is underlain by a sediment type "Till derived from limestones" over the majority of the subject site with a portion of the east of the site being underlain by sediment type "Gravel derived from limestones", refer to Figure 6.2 and 6.3 below. Refer to report 63022-X-00-Z00-XXX-RP-DBFL-CE-0003 for further information on subsoil characteristics.

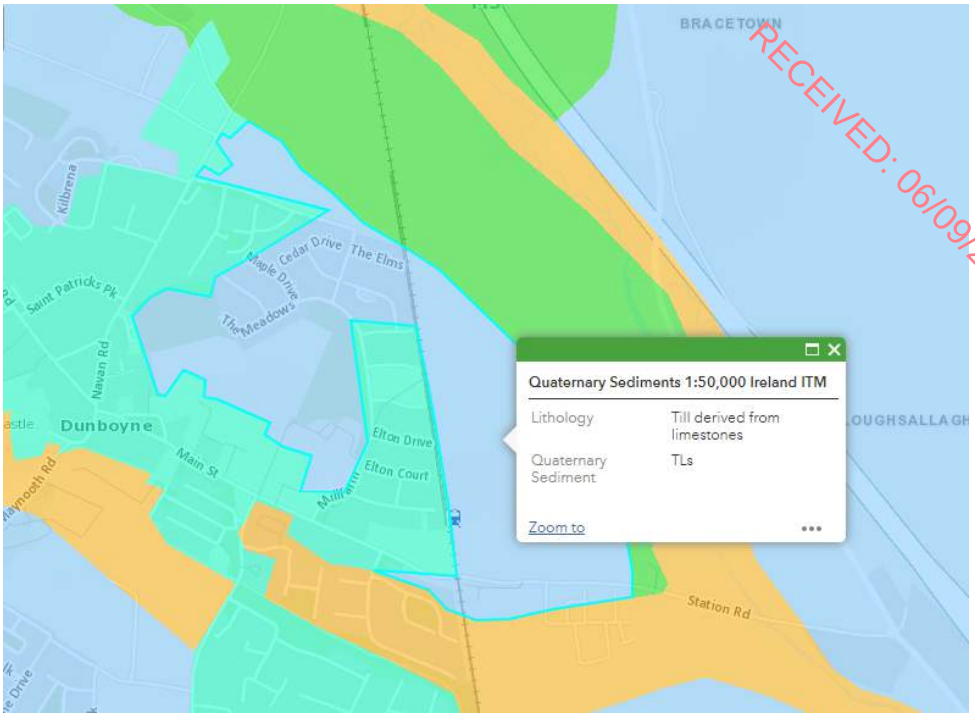


Figure 6.2 - Extent of till derived from limestones to the west of the subject site

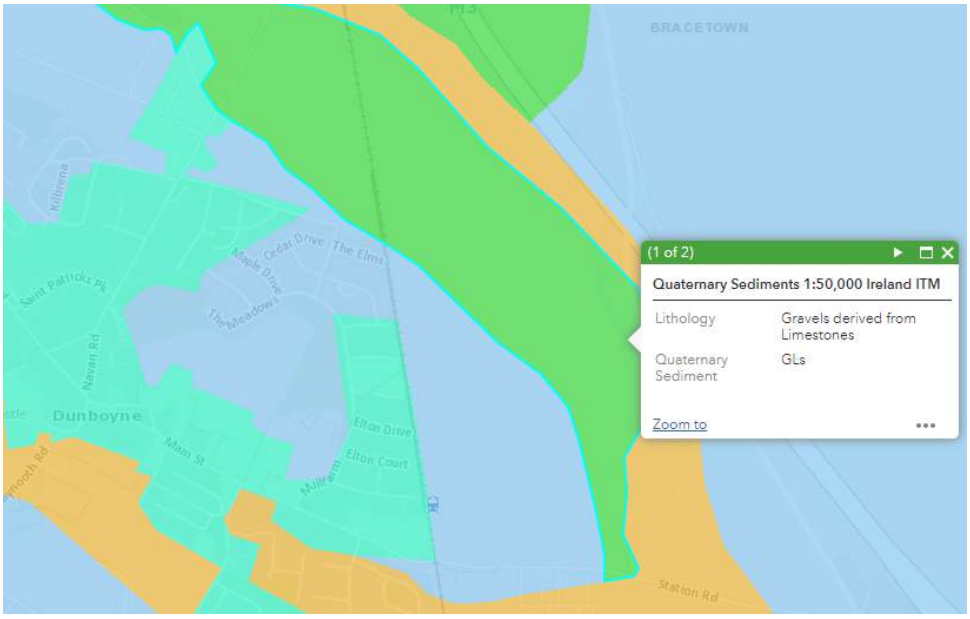


Figure 6.3 – Extent of Gravels derived from limestones to the east of the subject site

Ground Conditions of the site as observed during the ground investigations by Causeway Geotech are summarised in Table 6.1 Below.

Ground Condition Characteristics	***General Soil Characteristics as Summarised by Causeway Geotech***

Topsoil	Topsoil was encountered at all locations, except TP04, and ranged in thickness between 100mm and 400mm across the site.
Glacial Till	Sandy gravelly clay, frequently with low cobble content, was encountered at all locations except BHTP01 and BHTP03. Where the Glacial Till was encountered, it was found to overlie fluvioglacial gravels to a maximum depth of 0.95m in BHTP05.
Fluvioglacial Deposits	These are typically dense sandy gravel / sandy silty gravels and were encountered at all locations to a maximum depth of 3.0m in the boreholes. The boreholes terminated at depths of between 2.6m and 3.4m and, therefore, the extent of the depth of this stratum was not determined.
Groundwater	Groundwater was encountered during percussion boring through the soil as water strikes. Groundwater was struck at 2.1m in BHTP03, and rose by 0.1m after 20 minutes. Groundwater was struck at 2.0m in BHTP05 and noted as seepage. Groundwater was not observed in the other boreholes nor during the excavation of any of the trial pits.
Infiltration Drainage	The investigation found that the rates of infiltration observed, together with the soil types imply that the subsoil may be considered suitable media for an infiltration drainage system. Refer to report 63022-X-00-Z00-XXX-RP-DBFL-CE-0003 for further information on infiltration characteristics.

Table 6.1 – Comparison of ground condition characteristics

Geology & Hydrogeology

A review of GSI's online mapping service ("Bedrock Geology") describes geology in the majority of the site as Lucan Formation of "Dark limestone & shale" as per Figure 6-4.

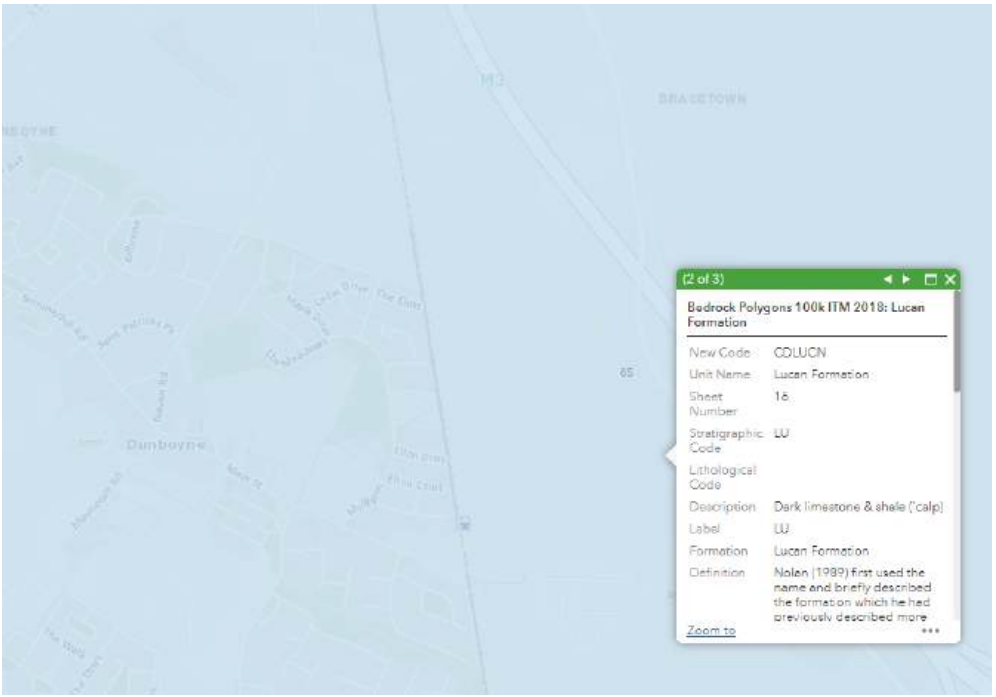


Figure 0-4: Extract from Bedrock Geology Map (source GSI Online Mapping Service)

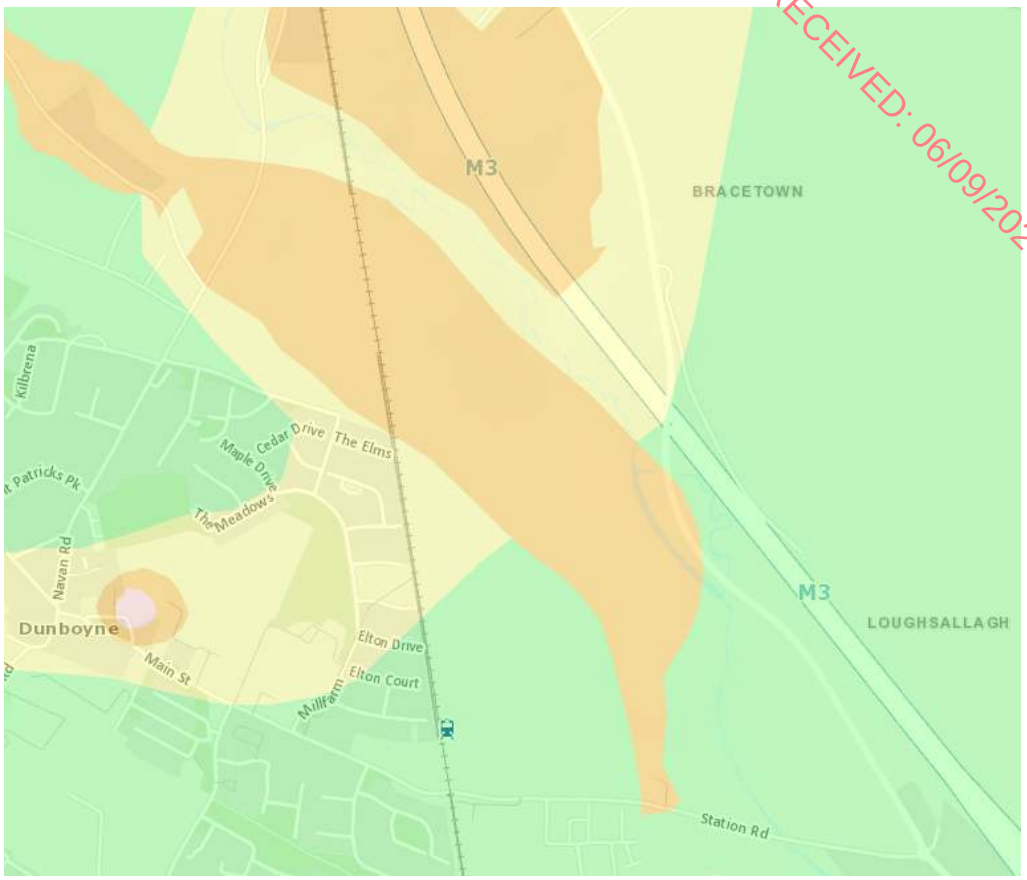


Figure 0-5: Extract from Groundwater Vulnerability Map (source GSI Online Mapping Service)

Groundwater vulnerability varies from "high" to "moderate" to "low" across the subject site, refer to Figure 6-5 above. Infiltration tests undertaken by Causeway Geotech indicated the possibility of using infiltration drainage and this is supported by GSI mapping below in Figure 6.6 which illustrates groundwater permeability of the subject site. High subsoil permeability is indicated in green while low subsoil permeability is indicated in blue. Despite subsoil mapping indicating some areas of low permeability, reasonable infiltration rates were achieved for these areas as confirmed by direct testing of the subsoil. The highest infiltration rates were achieved to the north of site in areas hatched in green which appear to coincide with subsoil mapping. Refer to report 63022-X-00-Z00-XXX-RP-DBFL-CE-0003 for a further discussion on subsoil permeability and the siting of specific SuDS devices.

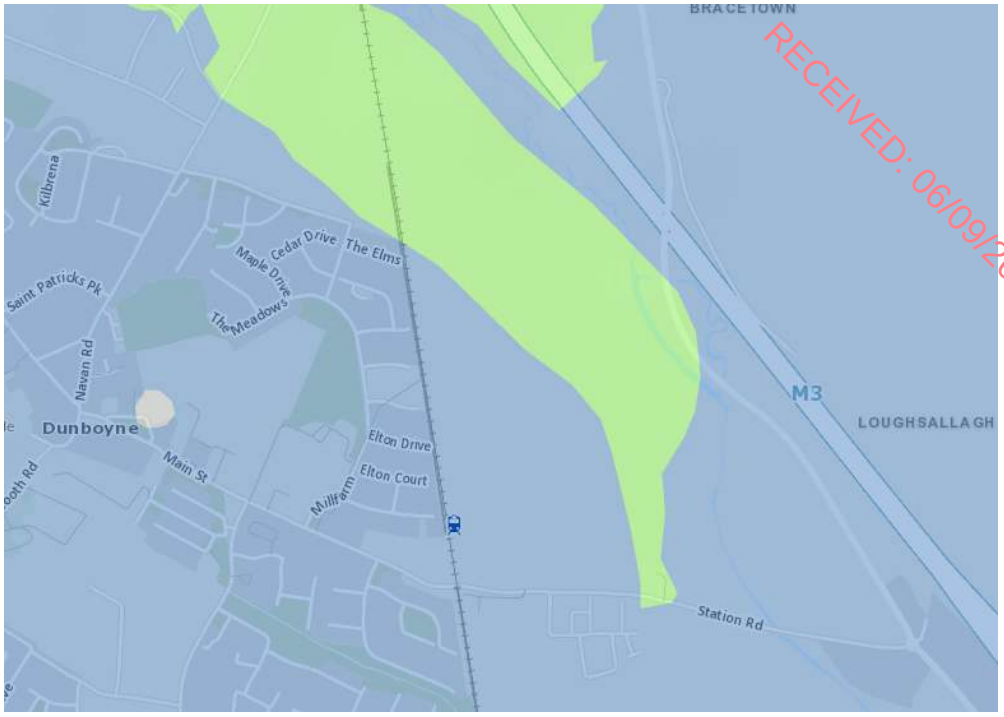


Figure 0-6: Extract from Groundwater Subsoil Permeability Map (source GSI Online Mapping Service)

There are no designated sites of geological heritage within the vicinity of the proposed LRD.

Soil Contamination

As the site is largely agricultural greenfield it is unlikely that contaminated ground would be encountered. This is reinforced by no 'made ground' being described in the ground investigations undertaken.

6.4 Characteristics of the Proposed Development

The proposed development consists of 853no. residential units comprising of houses, apartments, and duplex apartments. Furthermore, a neighbourhood centre is proposed within Block A incorporating a retail space. Creche facilities are proposed at the north and south of the site. Adjacent to Block A and C. Vehicular access will be via a new proposed Distributor Road to be constructed along the eastern boundary of the development under a separate planning permission. This distributor road will connect to Station Road located to the south of the site and the Navan Road to the northwest of the site as well as providing access to Dunboyne Rail Station through the proposed development.

The proposed development will require the stripping of topsoil and excavation of subsoil layers in order to allow for the construction of internal access roads and building foundations. Excavations will also be required for drainage and utility installations and the provision of above and below ground attenuation. The suitability of excavated material for reuse will be determined by analysis on the quality of excavated material and subsequent testing and categorisation.

Importation of fill will be required beneath the buildup of access roads. Localised importation of fill may be required to raise ground levels for drainage purposes and to provide detention basins for the runoff generated within the proposed development.

6.5 Potential Impacts

The predicted impacts of the proposed development of the Large-Scale Residential Development (LRD) will be assessed for the construction and operational phases.

Construction Phase

Stripping of Topsoil

Removal of the existing topsoil layer will be required for construction of the development. As noted above, site-won material may be reused on site for the construction of detention basins or other non-structural applications dependent on the results of the testing undertaken.

Stripping of topsoil will result in exposure of the underlying subsoil layers to the effects of weather and construction traffic and may result in subsoil erosion and generation of sediment laden runoff.

Excavation of existing subsoil layers will be required in order to allow road and foundation construction, drainage and utility installation.

In addition, the installation of the sustainable urban drainage systems will require large quantities of subsoil to be excavated to provide attenuation storage for extreme weather events. The construction of swales and bioretention areas would require a shallow excavation up to approximately 1.2m below existing ground level. Site-won material may be used as the topsoil finish to form an above ground berm to shape the basin/swales for storage purposes.

Underlying subsoil layers are expected to be generally suitable for reuse as general fill (e.g. build-up of landscaped areas or build-up of open spaces) and potentially structural fill subject to structural requirements and further testing.

Imported Fill

In the context of materials imported to site, these will be natural stones sourced from locally available quarries, greenfield / inert soil imported as materials that have been determined as by-products in accordance with the EPA's criteria for determining a material is a by-product or not a waste, per the provisions of articles 27(1) or 28 of the European Communities (Waste Directive) Regulations, 2011-21, or under a Waste Permit issued by the local authority, where required.

Imported materials will be granular in nature and used in the construction of road pavement foundations, drainage and utility bedding and surrounds. Imported fill will also be required for the raising of the site levels locally and constructing detention basins.

Materials will be brought to site and placed in their final position in the shortest possible time. Any imported material will be kept separate from any site-won material arising from the site. All excavation to accommodate imported material will be precisely co-ordinated to ensure no surplus material is brought to site beyond engineering requirements. Please note further site investigation will be conducted to confirm the suitability and quantity of material for reuse and imported fill.

Construction Traffic

Earthwork's plant (e.g. dump trucks) and vehicles delivering construction materials to site (e.g. road aggregates, deliveries etc.) have potential to cause rutting and deterioration of the topsoil layer (before removal) and any exposed subsoil layers, resulting in erosion and generation of sediment laden runoff. This issue can be particularly noticeable at site access points (resulting in deposition of mud and soil on the surrounding road network). Dust generation can also occur during extended dry weather periods as a result of construction traffic.

Accidental Spills and Leaks

During the construction phase there is a risk of accidental pollution from the sources noted below. Accidental spills and leaks may result in contamination of the soils underlying the site.

- Storage of oils and fuels on site
- Oils and fuels leaking from construction machinery
- Spillage during refuelling and maintenance of construction machinery
- Use of cement and concrete during construction works

Groundwater vulnerability is mapped as 'high' to 'moderate' to 'low' by the GSI at the proposed site. Vulnerability may be temporarily increased due to the removal of soils, subsoils and made ground cover during construction. Therefore, accidental spillages may permeate through subsoils layers and impact the 'locally important' aquifer.

Geological Environment

Any excavations associated with construction of the development are expected to be moderate for the most part with the deepest excavations associated with construction of the proposed attenuation system (approx. 3m). Current site investigation boreholes were excavated down to 3.0-BGL. It is possible that underlying geology may be disturbed in areas of deeper excavation. Any potential impacts to underlying geology as a result of these excavations will be further assessed following more detailed site investigation works prior to any construction work.

Operational Phase

Once the construction stage is complete and the development is operational, the geology beneath the proposed site will remain unchanged. Subsoil will either be covered by surface hardstanding or landscaped areas.

As outlined in the Engineering Services Report, foul sewer waste generated from the development will largely be discharged to the existing foul sewer that runs along the western boundary that serves the neighbouring development. A portion of the development located to the north of site will be directed to the diverted foul sewer which shall run along the proposed distributor road. All foul sewers will discharge to the Irish Water foul sewer system.

Surface water runoff will be collected via the proposed surface water drainage system comprising of nature-based SUDS solutions and piped networks. The runoff will be

collected across several catchments as noted in the accompanying engineering services report and discharge directly to river Tolka to the East. Infiltration to ground will be used where possible through SUDS features such as swales, detention basins and infiltration blankets.

There will be no significant storage or use of hazardous materials during the operational phase that could adversely impact subsoil, groundwater or surface water in the vicinity of the site. Accidental losses of oil, petrol or diesel on the roadway could cause contamination if these elements entered the underlying soil and groundwater. The large provision of SUDS devices through the development will offer a level of filtration for hydrocarbons and all surface water will be routed through a suitably sized petrol interceptor before discharging to existing water courses or surface water networks.

In the absence of mitigation measures, should accidental losses of oil, diesel, or petrol to ground occur, they would be considered direct, negative impacts of temporary duration, given that they would be confined to one-off releases. This would be considered a medium impact to a medium-extreme sensitivity environment, and the significance of the impact would be moderate.

6.6 Potential Cumulative Impacts

Due to the lack of significant residual impacts from the construction of the LRD development that would affect the wider geological environment, there will be no significant cumulative impacts to land, soil and (hydro)geology resulting from this project, and other local existing developments, projects and plans. All impacts on soils and geology relating to the proposed project will be localised and within the development footprint.

6.7 Mitigation Measures

Construction Phase

Stripping of Topsoil

Stripping of topsoil will be carried out in a controlled and carefully managed way and coordinated with the proposed development programme. At any given time, the extent of topsoil strip (and consequent exposure of subsoil) will be limited to the immediate vicinity of active work areas.

Topsoil stockpiles will be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains. Topsoil stockpiles will also be located so as not to necessitate double handling.

Surface water runoff from areas stripped of topsoil will be directed to temporary on-site settlement ponds where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.

On-site settlement ponds are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.

Excavation of Subsoil Layers

Excavation of existing subsoil layers has been minimised as far as reasonably practicable. Cut type earthwork operations will be required to achieve designed site levels. Cut material is considered likely to be suitable to be reused as non-structural fill elsewhere on site. Confirmation of general suitability will be determined at detailed design

stage, and individual loads will undergo sporadic testing to confirm uncontaminated status prior to widespread use on site. Dependent on the results of the detailed site investigation, any subsoil proposed for structural fill will undergo soil improvement work required at the direction of an appointed geologist.

Disturbed subsoil layers will be stabilized as soon as practicable (e.g. backfill of service trenches, construction of road capping layers. The duration that subsoil layers are exposed is to be minimised in order to mitigate against weather effects.

Similar to comments regarding stripped topsoil, stockpiles of excavated subsoil material will be protected for the duration of the works. Stockpiles of subsoil material will be located separately from topsoil stockpiles.

Measures will be implemented to capture and treat sediment laden surface water runoff (e.g. sediment retention ponds, surface water inlet protection and earth bunding adjacent to open drainage ditches).

Imported Fill

As noted in section 6.5 above, importation of fill to site will be required.

The source of aggregate, fill material and topsoil imported to site will be carefully selected in order to ensure that it is of a reputable origin and that it is "clean" (i.e. will not contaminate the environment). Project contract and procurement procedures will be developed to ensure that aggregate, fill material and topsoil are acquired from reputable sources with suitable environmental management systems as well as regulatory and legal compliance.

No long-term stockpiles of fill material will be held on the site. At any time, the extent of fill material held on site will be limited to that needed in the immediate vicinity of the active work area.

Smaller stockpiles of fill, where required, will be suitably protected to ensure no sediment laden runoff enters existing surface water drains. Such stockpiles are to be located in order to avoid double handling.

Construction Traffic

A construction traffic management plan will be developed and implemented in order to minimise the disturbance caused by large vehicles. This management plan shall include and detail:

- Predetermined haul routes for earthworks plant and vehicles delivering construction materials to site.
- Vehicle wheel wash facilities in the vicinity of any site entrances and road sweeping to maintain the road network in the immediate vicinity of the site.
- Dust suppression measures (e.g. dampening down).

Accidental Spills and Leaks

Due to the presence of a locally important aquifer beneath the site, the potentially high groundwater vulnerability, and the local ditch network it will be necessary to employ mitigation measures at the construction site in order to prevent spillages to ground of

fuels, and to prevent consequent soil or groundwater quality impacts. These measures will be further outlined pre-construction in a Construction & Environmental Management Plan (CEMP) to be provided by the appointed contractor undertaking the works and are listed here as follows:

- Over Ground Oil / Diesel Storage – Only approved storage system for oil / diesel within the site will be permitted, (i.e. all oil / diesel storage to be located within a designated area placed furthest away from adjacent watercourses and contained within constructed bunded areas e.g. placed on 150mm concrete slab with the perimeter constructed with 225mm solid blockwork rendered internally);
- The bunded area will accommodate the relevant oil / diesel storage capacity in case of accidental spillage. Any accidental spillages will be dealt with immediately on site, however minor, by containment /removal from site;
- All hazardous substances on-site shall be controlled within enclosed storage compounds that shall be fenced-off and locked when not in use to prevent theft and vandalism;
- Fixed plant shall be self-bunded; mobile plant must be in good working order, kept clean, fitted with drip trays where appropriate and subject to regular inspection; water runoff from designated refuelling areas shall be channelled to an oil-water separator, or an alternative treatment system, prior to discharge; and,
- Spill kits and oil absorbent material shall be carried with mobile plant and located at vulnerable locations around the site to reduce risk of spillages entering the sub-surface or groundwater environment; booms shall be held on-site for works near drains or dewatering points.

Geological Environment

No mitigation measures are proposed in relation to the geological environment. To note, the local spillages will be managed as per item above.

Operational Phase

The operational phase of the development is unlikely to have any significant adverse impacts on the local geological / hydrogeological environment due to the environmental considerations incorporated into the design. These measures will seek to avoid or minimise potential effects, in the main, through the implementation of best practice construction methods and adherence to all relevant legislation.

6.9 Predicted Impacts

Construction Phase

As a result of the proposed LRD development the current land use will change from a greenfield to a residential development with associated landscaping. Implementation of the measures outlined in the sections above will ensure that the potential impacts of the proposed development on soils and the geological environment do not occur during the construction phase and that any residual impacts will be short term / imperceptible.

Operational Phase

There are no predicted impacts arising from the operational phase. Accordingly, the predicted impact will be long-term-imperceptible-neutral.

6.10 Interactions

Construction Phase

Biodiversity

During construction biodiversity may be affected due to the excavations required for the LRD development. This is discussed in the 'Biodiversity' chapter of this EIAR.

Hydrology

During Construction it is likely there will be an increase in mobile sediments which if unmitigated can cause impacts to the receiving water courses. This is discussed in the Hydrology chapter of this EIAR.

Material Assets - Waste

During construction it will be necessary to dispose of any excess excavated materials. This is discussed in the Material Assets - Waste chapter of this EIAR.

Air, Noise and Vibration

The excavation of the subsoils will generate air, noise and vibration pollution. This is discussed within the Air, Noise and Vibration chapter of this EIAR.

Cultural Heritage (Archaeological & Architectural)

There is potential for excavations to uncover cultural heritage within the area. This is Discussed within the Cultural Heritage (Archaeological & Architectural) chapter of this EIAR.

Operational Phase

As noted above post-development the predicted impact will be long-term-imperceptible-neutral and as such there will be no perceptible interaction between the subsoils of the developed site and other environmental impactors discussed within this EIAR.

6.11 'Do Nothing' Scenario

Should the development not proceed the site would remain in its current state with the only likely impact on the underlying soil and/or aquifer due to natural processes and current agricultural use. The continued vacancy of the site is likely to have a Neutral and Imperceptible effect on the surrounding environment.

6.12 Worst Case Scenario

During decommissioning of the proposed development, there is a risk of localised accidental pollution incidences from the following sources:

- Spillage or leakage of temporary oils and fuels stored on site;
- Spillage or leakage of oils and fuels from machinery or site vehicles; and
- Spillage of oil or fuel from refuelling machinery on site

Accidental spillages may result in localised contamination of soils and groundwater underlying the proposed development site, should contaminants migrate through the subsoils and impact underlying groundwater i.e. unmitigated. Groundwater vulnerability at the proposed development site is classified as 'high'. Therefore, this is considered the 'Worst Case' scenario.

6.13 Monitoring & Reinstatement

Proposed monitoring during the construction phase in relation to the soil and geological environment are as follows:

- Adherence to the future CEMP
- Construction monitoring of the works (e.g. inspection of existing ground conditions on completion of cut to road formation level in advance of placing capping material, stability of excavations etc.).
- Inspection of fuel / oil storage areas.
- Monitoring cleanliness of adjacent road network, implementation of dust suppression and provision of vehicle wheel wash facilities.
- Monitoring of contractor's stockpile management (e.g. protection of excavated material to be reused as fill, protection of soils for removal from site from contamination).
- Monitoring sediment control measures (sediment retention ponds, surface water inlet protection etc.).
- Monitoring of existing ditches (e.g. inspection of ditches on a regular basis to sure they are free from debris until they are diverted into the new drainage network/retention basins.

No ongoing monitoring is proposed on completion of the construction phase.

Reinstatement

All temporary construction compounds and site entrances are to be removed upon completion of the construction phase. Such temporarily used areas where not located on areas for development to be developed will be decommissioned and revert to greenfield.

All construction waste and / or scrapped building materials are to be removed from site on completion of the construction phase.

Oil, fuel etc. storage areas are to be decommissioned on completion of the construction phase. Any remaining liquids are to be removed from site and disposed of at an appropriate licenced facility.

All sediment control measures (e.g. sediment retention ponds) are to be decommissioned on completion of the construction phase. Such areas are to be reinstated in accordance with the landscape architect's plan and engineer's drawings.

6.14 Difficulties In Compiling Information

No particular difficulties were encountered in compiling this section.

6.15 References

- Greater Dublin Strategic Drainage Study (2005) – Fingal County Council, Dublin City Council, Dún Laoghaire-Rathdown County Council, South Dublin County Council, Wicklow County Council, Kildare County Council, Meath County Council
- The Greater Dublin Region Code of Practice for Drainage Works (2012) – Fingal County Council, Dublin City Council, Dún Laoghaire-Rathdown County Council, South Dublin County Council, Wicklow County Council, Kildare County Council, Meath County Council
- Code of Practice for Water Infrastructure (2020) – Irish Water
- Code of Practice for Wastewater Infrastructure (2020) – Irish Water
- Includes Causeway Geotech Report (March 2019) and
- Environmental Protection Agency (EPA) online mapping service
- Geological Survey of Ireland (GSI) online mapping service
- Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements. Institute of Geologists of Ireland (2013)
- Guidelines on the information to be contained in environmental impact assessment reports. Environmental Protection Agency (Draft 2017)
- Engineering Services Report by DBFL
- Engineering Drawings by DBFL
- Infiltration Feasibility Assessment Report by DBFL

7 LANDS, SOIL, GEOLOGY AND HYDROGEOLOGY

7.1 Introduction

This chapter of the EIAR was prepared by Steven Corroon, CEng, MIEI, PGcert, BEng (Hons), who is a chartered engineer and Senior Civil Engineer at DBFL Consulting Engineers with over 7 years industry experience. This chapter of the EIAR comprises an assessment of the likely impact of the proposed Large-Scale Residential Development (LRD) on the hydrology and water services as well as identifying proposed mitigation measures to minimise any likely significant effects identified.

7.2 Methodology

residual

The assessment was undertaken to evaluate potential environmental impacts on the hydrological and hydrogeological environments by undertaking the following:

- A desk-based study of all available hydrological and hydrogeological information in relation to the site and its general environs;
- A review of the spatial layout and characteristics of the proposed development;
- A review of construction and operational phase activities associated with the proposed development.

The assessment also provides appropriate mitigation measures to avoid, prevent or reduce any potential adverse impacts on the hydrological and hydrogeological environments and details residual impacts following mitigation, if any.

The following sources of information were used in the compilation of this assessment:

- Site inspection/walkover
- Review of existing topographic survey information
- Ordnance Survey of Ireland online historical maps and aerial photographs
- GSI - On-line Geology Database. Aquifer Classification, Aquifer Vulnerability
- Soil Map of Ireland (Second Edition, 1980), National Soil Survey of Ireland, An Foras Talúntais
- Environmental Protection Agency (EPA) online water quality mapping; (https://gis.epa.ie/EPAMaps/)
- Water Framework Directive (WFD)
- OPW hydro-data (http://www.opw.ie/hydro-data)
- Met Eireann monthly climatological data (https://www.met.ie/)
- Review of utility records obtained from Irish Water (IW)
- Causeway Geotech Ground Investigation – "Dunboyne Train Station" (March 2019)
- Meath County Development Plan 2022-2027
- NJS-JBAI-XX-XX-RP-HM-007-S3-Dunboyne Flood Risk Assessment
- DBFL report 163022-X-00-Z00-XXX-RP-DBFL-CE-0006 Engineering Services Report
- Dunboyne Water Supply - Groundwater Source Protection Zones, 2004, Prepared for Meath County Council.

7.3 Receiving Environment

Site Location and Context

The lands on which the Large-Scale Residential Development (LRD) will be constructed are currently used for agricultural purposes. As detailed in Chapter 6 the LRD site slopes gently at an approximate gradient of 1 in 260 from north-west to south-east towards the L2228 road. There are several existing land drainage channels crossing the site and an existing culvert to the northwest under the railway line which connects into the channels crossing the site. There are overhead power lines crossing the north of the site in an east-west direction.

Land Use and Site History

The land of the subject site is currently utilised as agricultural greenfield. The existing Dunboyne to M3 Parkway railway line runs along the western boundary. Station Road/L2228 is located to the south of the development lands. A review of the online OSI historical mapping indicates that the subject lands have comprised of greenfield land cover throughout the 19th and 20th century.

The current GSI wells and spring mapping indicates 2no. springs within the vicinity of the LRD site. No spring sources were discovered directly within the site boundary. The site is situated above a locally important aquifer.

Historical and current mapping notes a spring to the south of Station Road, described as the Clonee Spring – this is a low-yield spring. Please refer to Figure 7-1 below.

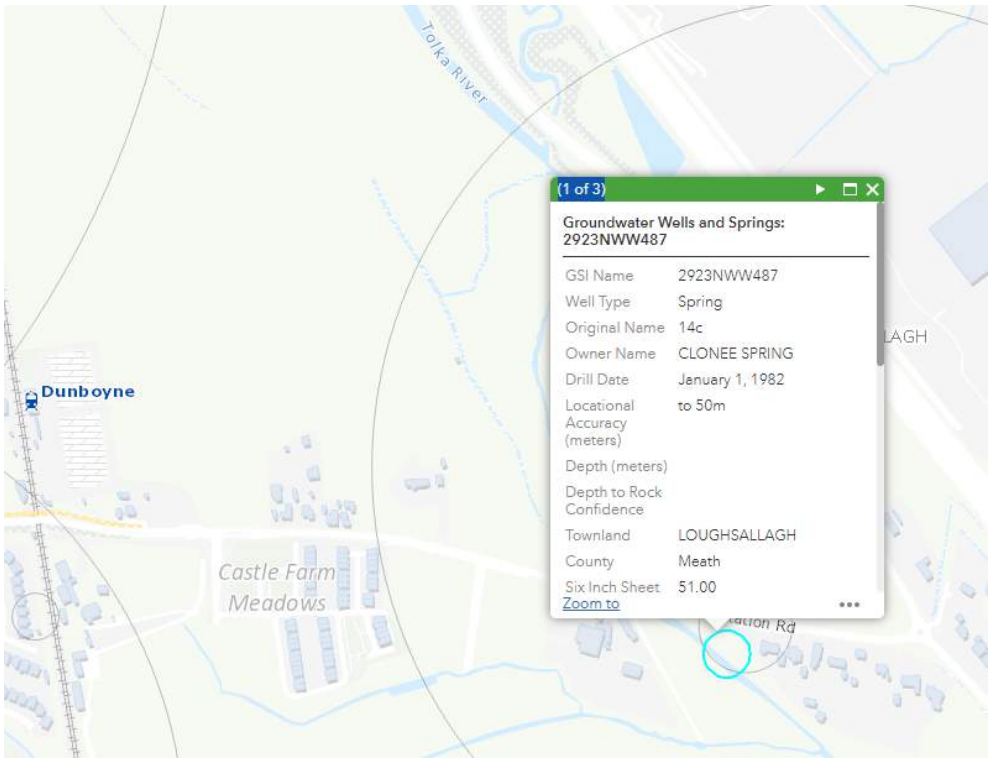


Figure 7-1: Groundwater Wells and Springs GSI online mapping service extract

The LRD site is not located within a "Public Supply Source Protection Area". A Public Supply Source Protection Area exists in the lands west of the proposed development. See Figure 7-2 below.

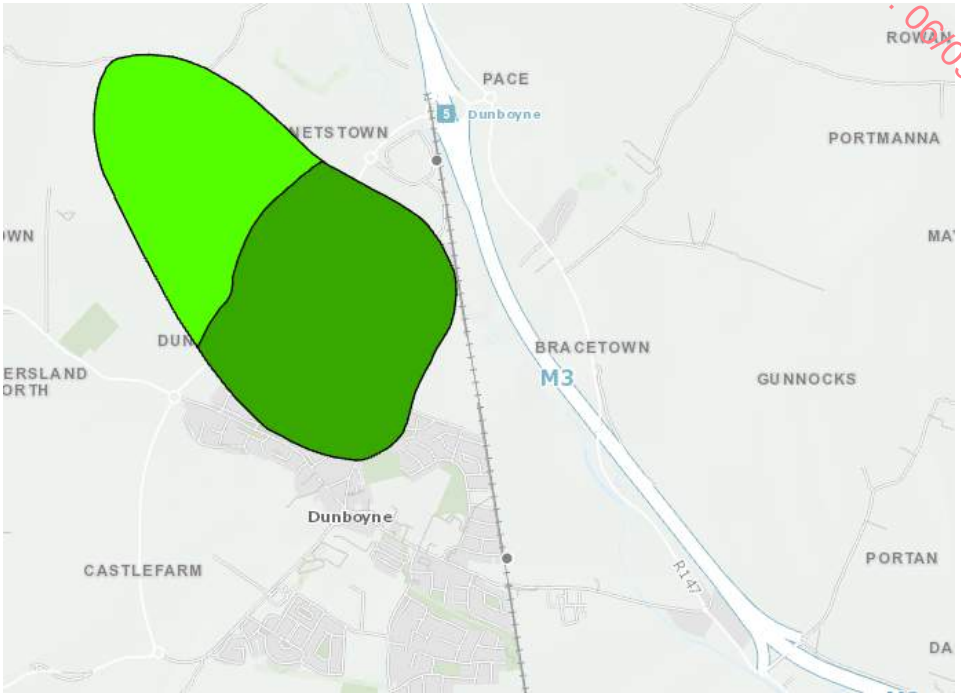


Figure 7-2: Public Supply Source Protection Area GSI online mapping service extract

This protection area is in place to ensure the water quality of the supply to Dunboyne. From the Dunboyne Water Supply – Groundwater Source Protection Zones Report "These boreholes are the main public water supply for Dunboyne, Clonee and their surrounds. The wells are located northeast of Dunboyne, on the Navan Road. PW No.1, PW No.2 and PW No.4 are located 1 km northeast of the village on the southern bank of a tributary of the River Tolka and PW No.3 is located 500 metres northeast of the village, beside Dunboyne Industrial Estate."

Any potential influence of the springs on construction and vice versa will be considered in section 7.5 of this report, however as the development is not located within the protection area the effects are likely to be negligible.

There are a number of agricultural drainage ditches which traverse the subject site. As described in the Engineering Services Report and accompanying Drainage Outfall Assessment, most of the ditches provide local drainage and will be redundant through development of the subject site while the northernmost ditch shall be culverted through the development which receives surface water outside the development lands.

Site Investigation

Preliminary Ground Investigations for the proposed development were carried out in March 2019 by Causeway Geotech which involved the following:

- 5 No. Light Cable Percussion boreholes
- 5 No. Standpipe instillation in boreholes
- 5 No. Machine dug Trial Pits to a maximum depth of between 1.5 and 1.6m below ground level (BGL)
- 5 No. Infiltration tests in accordance with BRE Digest 365

Subsoils and Bedrock

A detailed description of the underlying subsoils and bedrock is provided in Chapter 6: Land Soil & Geology. In summary, the GSI maps indicate that the site is underlain by till and gravel derived from limestones. These subsoils are mapped as having high permeability largely to the northern portion of site.

The Ground Investigation Reports (Causeway Geotech, 2019) indicates that the cohesive subsoils under a layer of topsoil (0.1 – 0.4m) and are comprised of sandy gravelly CLAY derived from glacial till. Beneath this, granular deposits derived from fluvioglacial processes are present which consist of grey-brown sandy silty gravels. Variation of the secondary constituents was noted across the site and at varied depths.

The GSI geological mapping indicates that the bedrock geology underlying the subject lands comprises primarily Lucan Formation of "Dark limestone & shale".

Regional Aquifer Classification

The GSI database has devised a system for classifying the aquifers in Ireland based on the hydrogeological characteristics, size and productivity of the groundwater resource into the National Draft Bedrock Aquifer Map. The three main classifications are Regionally Important Aquifers, Locally Important Aquifers, and Poor Aquifers. Each of these types of aquifer is further subdivided and has a specific range of criteria associated with it, such as the transmissivity (m^2/day), productivity, yield, and the potential for springs.

According to the GSI Aquifer Map (Figure 7-3) the subject lands and surrounding area is underlain by a Locally Important Aquifer – Bedrock which is Moderately Productive only in Local Zones (Ll). The aquifer can supply poor yields with moderate amount of recharge available. This is further expounded upon in the referenced "Dunboyne Water Supply – Groundwater Source Protection Zones Report"

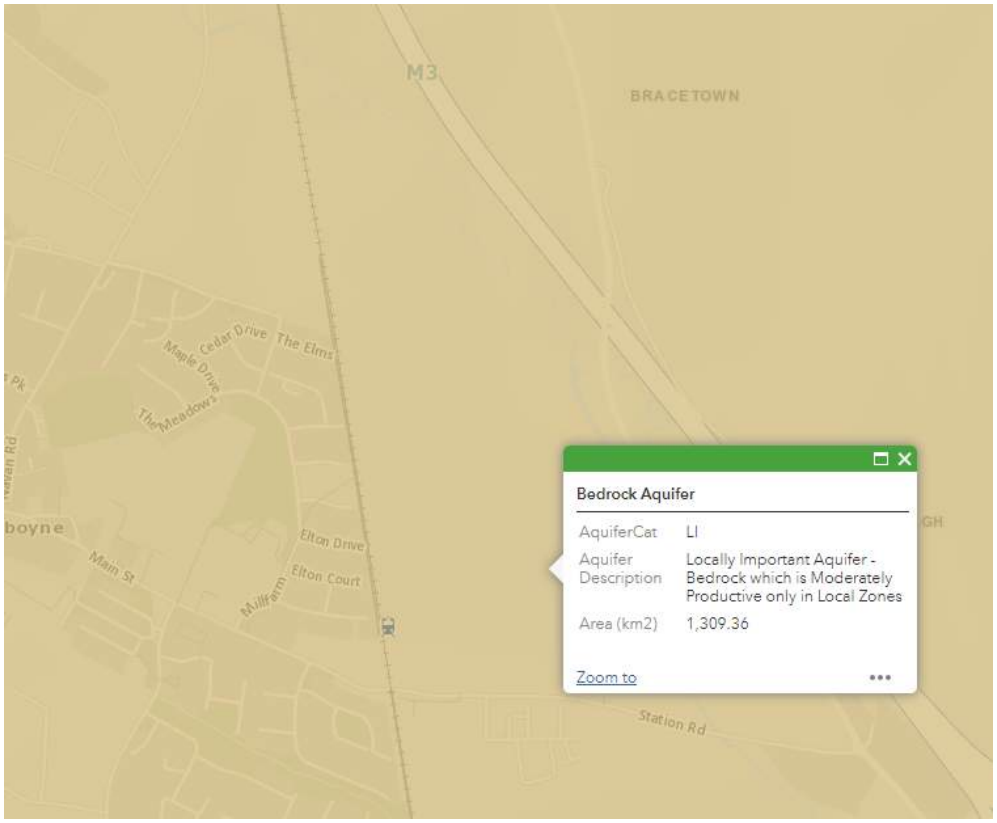


Figure 7-3: Extract from Groundwater Resources (Aquifers) Map (source GSI Online Mapping Service)

Aquifer Vulnerability

The GSI databases classifies aquifer vulnerability as the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities. The vulnerability of groundwater depends on the ability of contaminants to migrate to the underlying aquifer which is dependant predominantly on the permeability and thickness of the subsoils overlying the groundwater body and the types of recharge source (i.e. diffuse or point source). Under the GSI groundwater vulnerability classification scheme the mapped vulnerability at a location applies to the shallowest groundwater target (i.e. aquifer) at the location.

Aquifer vulnerability is largely dependent on overburden thickness and the inherent permeability of the bedrock. If bedrock is near or exposed at the surface the groundwater classification will be extreme. A detailed description of the groundwater vulnerability categories can be found in the Groundwater Protection Schemes document (DELG / EPA / GSI, 1999) (Table 7-1 below) and in the draft GSI Guidelines for Assessment and Mapping of Groundwater Vulnerability to Contamination (Fitzsimons et al, 2003).

According to the GSI database, the LRD development is located on several categorised areas of groundwater vulnerability but predominantly lying within "high" vulnerability and "low" vulnerability regions. Refer to Figure 7-4 below.

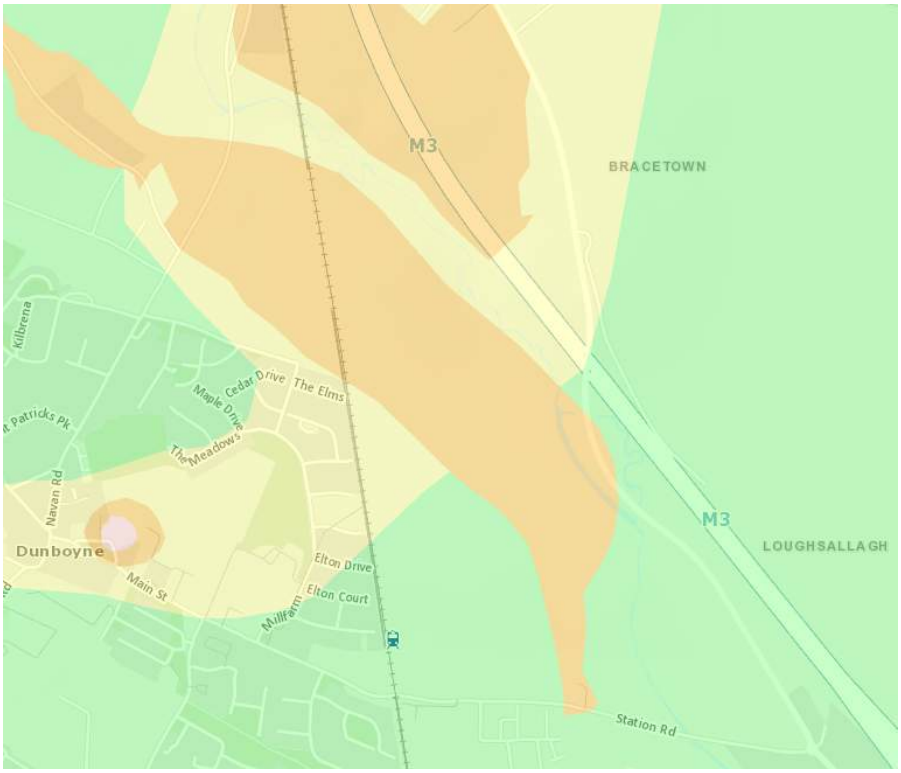


Figure 7-4:Extract from Groundwater Vulnerability Map (source GSI Online Mapping Service)

Vulnerability Rating	Hydrogeological Conditions				
	Subsoil Permeability (Type) and Thickness			Unsaturated Zone	Karst Features
	High Permeability (sand/gravel)	Moderate permeability (e.g. sandy subsoil)	Low permeability (e.g. clayey subsoil, clay, peat)	(Sand/gravel aquifers only)	(<30m radius)
Extreme (E)	0 – 3.0m	0 – 3.0m	0 – 3.0m	0 – 3.0m	-
High (H)	> 3.0m	3.0 – 10.0m	3.0 – 5.0m	> 3.0m	N/A
Moderate (M)	N/A	> 10.0m	5.0 – 10.0m	N/A	N/A
Low (L)	N/A	N/A	> 10.0m	N/A	N/A
Notes: (1) N/A = not applicable (2) Precise permeability values cannot be given at present (3) Release point of contaminants is assumed to be 1-2m below ground surface					

Table 7-1: Vulnerability Mapping Criteria (adapted from DELG / EPA / GSI, 1999)

Groundwater Levels and Flow Direction

In Causeway Geotech's Site Investigation report, groundwater was struck at 2.1m in BHTP03, and 2.0m in BHTP05. Groundwater was not observed in the other boreholes nor during the excavation of any of the trial pits. Groundwater flow direction generally follows the local topography (with the exception of karst environments).

Hydrology

The site is contained with the following water regions:

- WFD Catchment 09 Liffey and Dublin Bay
- WFD Sub Catchment Upper TOLKA PAA
- WFD River Sub Basins TOLKA_030

There are 4 no. mapped surface water features i.e. rivers segments which run near the site. Please refer to Figure 7-5

- TOLKA, IE_EA_09T01600, Segment Code 09_128
- BRACETOWN, IE_EA_09T010600, Segment Code 09_1402
- TOLKA, IE_EA_09T010600, Segment Code 09_226
- NAULSWOOD, IE_EA_09T010600, Segment Code 09_1422

These features, and therefore the subject site which drains topographically towards these features via a series of agricultural drainage ditches, are mapped as draining to the downstream river segment TOLKA, IE_EA_09T010600, Segment Code 09_1541

Review of the mapped features on site, through site observations and desk study (Upper Tolka PAA Deskstudy Assessment_F01) indicates that the mapped river segments are attributed 'poor' WFD river status.

"The TOLKA_020 (IE_EA_09T010600) waterbody is At Risk and has been assigned Poor WFD status (2013-18), based upon Poor Invertebrate Status or Potential and Moderate orthophosphate conditions. Biological (Q) status has been below "Good" since 1975. Status has fluctuated between Moderate and Good since 2002, with Moderate status up until 2007, Poor status from 2010 to 2016, with improvement again to Moderate in 2019"

The site is not hydrologically connected to any designated site.

Figure 7-5: River segments within the vicinity of the site.

Existing drainage ditches & Streams

As previously stated, there are a number of agricultural drainage ditches which traverse the subject site. The drainage ditches are not identified as watercourses on EPA mapping. As described in the Engineering Services Report and accompanying Drainage Outfall Assessment, most of the ditches provide local drainage and will be redundant through development of the subject site while the northernmost ditch shall be culverted through the development which receives surface water outside the development lands. The catchment area draining into these ditches within the site are ultimately discharged to the river segments noted above. Please refer to section 7.5 for further detail of the impacts of this work.

Surface Water Runoff

The pre-development surface water discharge from the LRD development catchment was estimated using data received from Met Eireann. The SAAR is determined as 808mm and

the soil index value for the development was determined to be 0.3 using 'The Classification of Soils from Winter Rainfall Acceptance Rate, Flood Studies Report Table 4.5'.

Considering a developable area of 15.90Ha, the cumulative permissible discharge rate for the LRD development is 34.3l/s.

Surface Water Drainage

There is an existing 300mm-750mm surface water sewer running along the entire length of the western boundary of the subject site. At the southwest corner of the site this surface water sewer crosses into the Dunboyne Railway Station lands where it then heads west under the railway tracks. This pipe shall be diverted within the subject lands to flow eastwards via a piped culvert where it is discharged at the River Tolka as directed by S247 comments.

As referred to above, there are a number of dry channels crossing the development site which provide drainage for the agricultural purposed of the land. There is also an existing culvert to the northwest of the site under the railway line which connects into one of these ditches. As part of the proposed development works the ditch crossing the track will be culverted eastwards to the River Tolka while the remaining ditches will be made redundant.

Water Supply

There is an existing 200mm watermain that runs along Station Road. There is no existing watermain infrastructure within The development lands. A watermain connection for the railway station is present within the existing station access road.

Foul Drainage

There is an existing 450mm diameter foul sewer which traverses the western lands outside of the subject site from Navan Road to the railway line before heading below the railways tracks and connecting into an existing 300mm/450mm foul sewer which flows south along the length of the western boundary of the development. This pipe receives foul sewer flows from the existing development to the west of the rail line through several rail crossings.

Flood Risk

JBA Consulting were commissioned to undertake a site-specific flood risk assessment for the proposed development (Report Reference NJS-JBAI-XX-XX-RP-HM-007-S3). The FRA included carrying out hydraulic modelling of the Tolka River and comparing against flood maps produced under the Eastern CFRAM study. The assessment was carried out in accordance with the procedure for a staged approach to flood risk assessment as outlined in the OPW's Guidelines for Planning Authorities – The Planning System and Flood Risk Management (November 2009).

Hydraulic modelling, which largely mirrored the Easter CFRAMs mapping, confirmed that there is a low fluvial flood risk on site. A small section primarily associated with the DEDR route falls within Flood Zone B which is contained to an existing drainage ditch. As this drainage ditch is proposed to be backfilled, compensatory storage (30m^3 confirmed by modelling) has been provided by widening the existing ditch immediately downstream and ensures that water levels are not affected during the 0.1% flood event. All buildings were noted to be located within Flood Zone C. Post development scenario modelling also confirms there is no increase in flood risk to the site or surrounding lands as a result of

the proposed development. Following completion of a justification test, the proposed development is considered appropriate as each of the criteria was satisfied. Refer to JBA's Site Specific Flood Risk Assessment for further details.

In addition, the proposed drainage is designed to provide protection against a possible pluvial flooding event up to the 100-year return period plus an allowance for climate change. Should extreme pluvial flooding occur that is in excess of the development's drainage capacity, overland flood routes have been designed to direct flood water away from the buildings in order to protect the development and residential units. Finished floor levels have additionally been set to achieve a minimum freeboard of 500mm above the modelled flood level of the Tolka river and attenuated top of water levels from site drainage.

OPW Flood Hazard Mapping

OPW's Summary Local Area Report summarises all flood events within 2.5 km of the site. The report indicates a number of flood events up and downstream of the proposed development, primarily associated with extreme pluvial events that occurred between 5th and 7th of November 2000. Please refer to JBA Consulting's Site-Specific Flood Risk Assessment for further details.

Eastern CFRAM Study

As part of the EU Floods Directive, the OPW is undertaking a Catchment Flood Risk Assessment and Management (CFRAM) Study. The Eastern CFRAM (ECFRAM) map does not indicate any watercourse within the boundary of the site. Based on the ECFRAM, the proposed development is located for the majority outside the extents of the 1 in 1000 year (0.1% AEP) of the Tolka river and its tributaries. A small portion of the subject site primarily related to the DEDR route lies within the extents of the 1 in 1000 year event (Flood Zone B). JBA Consulting's FRA compared water levels from ECFRAM study with Hydraulic modelling of the Tolka at primary node locations which were found to be largely in agreement. Refer to JBA Consulting's Site-Specific Flood Risk Assessment for further details.

7.4 Characteristics of the Proposed Development

The proposed development consists of 853no. residential units comprising of houses, apartments, and duplex apartments. Furthermore, a neighbourhood centre is proposed within Block A incorporating a retail space. Creche facilities are proposed at the north and south of the site. Adjacent to Block A and C. Vehicular access will be via a new proposed Distributor Road to be constructed along the eastern boundary of the development under a separate planning permission. This distributor road will connect to Station Road located to the south of the site and the Navan Road to the northwest of the site as well

as providing access to Dunboyne Rail Station through the proposed development.

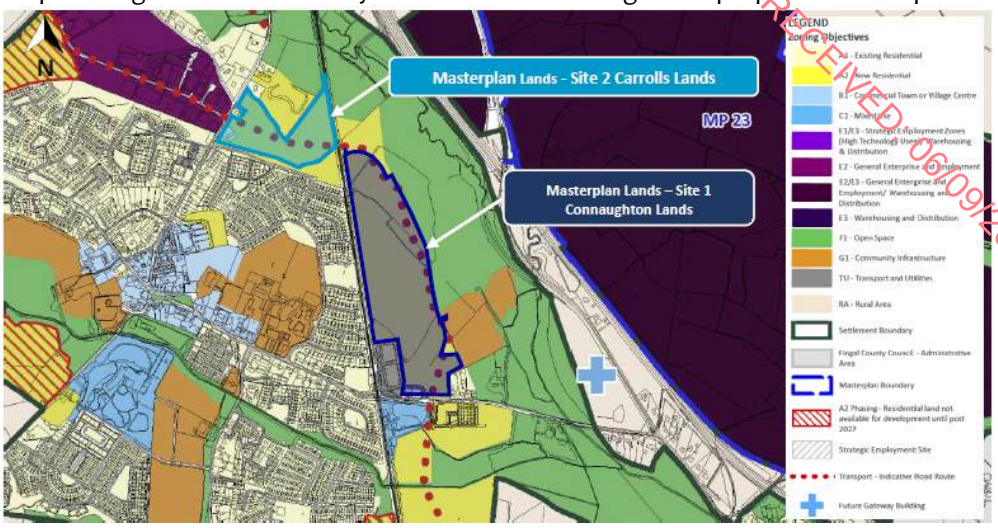


Figure 7.6 - Subject Site Land Use Zoning (Source: Meath County Development Plan 2021-2027)

7.5 Potential Impacts

Construction Phase

Potential impacts that may arise during the construction phase are noted below:

- Discharge of rainwater pumped from excavations may also contain increased silt levels (potential impact on existing hydrology e.g. discharge to existing open drainage).
- Diversion of drainage and modification of hydrological regime
- Accidental spills and leaks associated with storage of oils and fuels, leaks from construction machinery and spillage during refueling and maintenance contaminating the surrounding surface water and groundwater environments.
- Concrete runoff, particularly discharge of wash water from concrete trucks (potential impact on existing hydrology e.g. infiltration to ground).
- Discharge of vehicle wheel wash water (potential impact on existing hydrology e.g. discharge to existing surface water drainage infrastructure).
- Cross contamination of potable water supply to construction compound.
- Improper discharge of foul drainage from contractor's compound (impact on existing hydrology e.g. cross-contamination of existing surface water drainage).
- Surface water runoff during the construction phase may contain increased silt levels (e.g. runoff across areas stripped of hardstanding) or become polluted by construction activities.

Operational Phase

Potential operational phase impacts are noted below:

- Accidental hydrocarbon leaks and subsequent discharge into piped surface water drainage network (e.g. along roads).
- Increased impermeable surface area may reduce local ground water recharge and potentially increase surface water runoff (if not attenuated to greenfield runoff rate).

Implementation of the mitigation measures described under section 7.7 will prevent and minimize the potential impacts of this interaction.

7.6 Potential Cumulative Impacts

Construction Phase

The mitigation measures to be detailed and implemented by site specific Construction Environmental Management Plan (CEMP) and Surface Water Management Plan (SWMP) will be adhered to. The objective of these mitigation measures is to manage all existing surface water and construction waters at the site in such a way that the development will not have an adverse impact on the receiving surface water system. All waters which are managed on site will be pumped and discharged through an active management treatment train and under condition of a discharge licence. Potential temporary accidental releases present a residual potential impact which will contribute negatively to the cumulative impact on the receiving water system to a slight to moderate extent depending on the severity of the event.

Operational Phase

The proposed development drainage and SuDS network will be fully engineered during the detailed design phase. As part of this process, the rate, velocity and inundation times of the drainage network under a 1 in 100 year (+ climate change) event will be modelled and the systems configured to achieve the stated permissible discharge rates are achievable. Initial modelling of this type has already been undertaken as part of the planning submission and is included within the appendices of the Engineering Services Report. The assessment will also include for and mitigate against the potential for excess runoff overtopping and circumventing the established drainage/suds and migrating as overland flows. The process is in line with guidance on advanced flood risk assessment.

Achieving this will equate to a beneficial impact in terms of hydrological response to rainfall and flood risk, therefore contributing to cumulative impact beneficially i.e. reducing impacts on and downstream of the site.

7.7 Mitigation Measures

Construction Phase

The following measures are proposed during the construction phase to mitigate against risks to the receiving hydrological environment:

- A site-specific Construction Environmental Management Plan (CEMP) will be developed prior to the construction phase and implemented during the construction phase. Site inductions will include reference to the procedures and best practice as outlined in the CEMP.
- The CEMP will implement mitigation measures described within the Site Specific Flood Risk Assessment and Chapter 6 of this EIAR for the proposed site compound and stockpiles.
- Rainwater pumped from excavations is to be directed to on-site settlement ponds.
- Surface water runoff from areas stripped of topsoil and surface water collected in excavations will be directed to on-site settlement ponds where measures will

be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.

- Active construction water monitoring will be implemented with a settlement tank and associated infrastructure on standby to pump, manage, and treat construction water as required. With reference to previous sections of this report, there is a high potential for large volumes of construction water to be generated due to the footprint of works and potential for shallow groundwater with a variable watertable.
- No direct flow paths between stockpiles or other potential sources of contaminated runoff and watercourses will be permitted at the site.
- Weather conditions and seasonal weather variations will also be taken account of when planning of stripping the site and excavations, with an objective of minimizing soil erosion.
- Appropriate mitigation will be in place prior to the commencement of significant excavation or similar works.
- To facilitate interacting and manipulating the existing drainage network, and as part of developing detailed management plans prior to commencement of construction i.e. CEMP and SWMP, the site drainage network will be mapped and appropriate mitigation will be designed in terms of isolating existing drainage channels, and over pumping of incoming waters. Measures will include monitoring and emergency response in the event of system down time.
- A discharge license will be obtained. This is recommended particularly in relation to the initial stages of the development construction stage considering the potential volumes of incoming water and the necessity to manage and pump large volumes of water during drainage and surface water realignment.
- In order to mitigate against spillages contaminating the surrounding surface water and hydrogeological environments, all oils, fuels, paints and other chemicals shall be stored in a secure bunded hardstanding area. Refuelling and servicing of construction machinery will take place in a designated hardstanding area which will also be remote from any surface water inlets (where not possible to carry out such activities off site).
- Concrete batching will take place off site and wash out of concrete trucks will take place off site (at authorized concrete batching plant in full compliance with relevant planning and environmental consents).
- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds.
- Any groundwater pumped from excavations is to be directed to on-site settlement ponds.
- It is proposed to implement a programme for monitoring water quality at the outfall as part of the construction of this development, in agreement with the Planning Authority as part of the Discharge Licence.
- The construction compound will include adequate staff welfare facilities including foul drainage and potable water supply. Foul drainage discharge from the construction compound will be tankered off-site to a licensed facility.
- The construction compound's potable water supply shall be protected from contamination by any construction activities or materials.

Operational Phase

The design of proposed road levels has been carried out in such a way as to replicate existing surface contours, break lines etc. as closely as reasonably practicable and avoid concentrating additional surface water flow in any particular location.

Surface water runoff from the site has been divided up into catchments which will be attenuated (sized to cater for a 1% AEP event +20% allowance for climate change) and discharged at the allowable greenfield discharge rate QBar(rural) calculated in

Section 7.3. Surface water discharge rates will be controlled by Hydrobrakes (or similar agreed) vortex flow control device in conjunction with attenuation storage.

It is proposed to incorporate a sustainable 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, contributing to amenity, aesthetics and biodiversity enhancement and allow for the maximum collection of rainwater for re-use where possible. In addition, SuDS features aim to replicate the natural characteristics of rainfall runoff for any site by providing control of run-off at source and this has been achieved by the current proposals.

The surface water runoff from the proposed development site will be limited to a QBar(rural) rate for each of the sub-catchments as detailed above in section 7.3. Attenuation for the 100-year return period event and below (+ 20% allowance for climate change) will be contained in storage facilities with additional storage provided in landscaped areas and the drainage pipe network itself. For further detail of the proposed attenuation system please refer to the submitted Engineering Services Report.

Following initial discussions with Irish Water on foul sewer proposals for the development, it was requested that the existing 300mm sewer entering site from the northwest corner of the development after crossing beneath the railway line be intercepted and diverted along the DEDR route forming part of the LRD site. The diversion of this pipe is to alleviate pressure on the existing 300/450mm pipe traversing the western boundary which currently serves the existing developments west of the rail line. The completion of the diversion line is subject to future works by Irish Water to deliver a pipe from the connection point approximately 350m south of the subject lands, therefore proposals are to utilise the existing sewer until confirmation is received on timelines of completion. Refer to the Engineering Services Report for more information.

All foul drainage lines necessitated by the development will be air or water tested and be subject to a CCTV survey in order to identify any possible defects prior to being made operational.

No specific mitigation measures are proposed in relation to water supply outside of construction to the standards detailed within Irish Water's Codes of Practice and Standard details.

The potential impact of climate change has been allowed for as follows;

- Pluvial flood risk - attenuation storage design allows for a 20% increase in rainfall intensities, as recommended by the GDSDS
- Pluvial flood risk - drainage system design allows for a 20% increase in flows, as recommended by the GDSDS

7.8 Predicted Impacts

This section describes the predicted impact of the proposed development following the implementation of the remedial and mitigation measures, as set out above.

Construction Phase

Implementation of the measures outlined in Section 7.7 will ensure that the potential impacts of the proposed development on water and the hydrogeological environment do not occur during the construction phase and that any residual impacts will be negligible.

Operational Phase

As the surface water drainage design for the residential development site has been carried out in accordance with the GDSDS, and SuDS methodologies are being implemented the surface water runoff from both the proposed LRD development will be reduced and so the risk of flooding to the downstream drainage networks will also be reduced.

Foul drainage and watermains will be designed and constructed in accordance with Irish water Code of Practice. As a result, the predicted residual impacts on the water and hydrogeological environment arising from the operational phase will be negligible.

7.8 Interactions

Construction Phase

Biodiversity

During construction biodiversity may be affected due to the potential for increased contaminants within the runoff arising from site. The mitigation measures outlined within this chapter will reduce the risk and downstream impacts will be negligible. This is also discussed in the 'Biodiversity' chapter of this EIAR.

Land, Soils and Geology

During construction the excavation of subsoils will increase the groundwater vulnerability and also generate mobile sediments. This is discussed within this chapter and the Land, Soils and Geology chapter.

Operational Phase

Biodiversity

Post-development there is likely to be a loss of low-value biodiversity that would have been present in the existing agricultural lands. There is potential for biodiversity gain within the proposed SuDS systems for the site. This is discussed further in this chapter and the Biodiversity chapter of this EIAR.

Climate Change

The surface water drainage systems for the proposed development have been designed with consideration of increased rainfall due to climate change. This is further elaborated upon within the accompanying Engineering Services Report.

7.9 'Do Nothing' Scenario

Should the development not proceed the landcover would remain unchanged as a greenfield site. The surface water from the site, conveyed by the pre-existing agricultural ditches, and draining to the receiving waterways would continue as before.

7.10 Worst Case Scenario

Catastrophic adverse impact to the hydrological regime potentially significantly exacerbating on site and downstream flood risk:

- Significant adverse impact to water quality in the receiving surface water network.
- Significant adverse impact to the receiving surface water WFD status and risk of deteriorating.
- Significant adverse impact to groundwater quality in the event of unmitigated hydrocarbon release.
- Significant adverse impact to the drinking water supply for Dunboyne, fed from the Groundwater Drinking Water Protection Areas identified in section 7.3

7.11 Monitoring & Reinstatement

Proposed monitoring during the construction and operational phase in relation to the water and hydrogeological environment are as follows:

- Adherence to Construction Environmental Management Plan.
- Inspection of fuel / oil storage areas.
- Monitoring cleanliness of adjacent road network, implementation of dust suppression and vehicle wheel wash facilities.
- Monitoring sediment control measures (sediment retention ponds, surface water inlet protection etc.).
- Monitoring of discharge from sediment retention ponds (e.g. pH, Total Suspended Solids, Hydrocarbons, etc).
- Telemetric real time monitoring of dewatering and pumping systems. Alarms will be established to notify relevant operators in the event of system down time.
- Monitoring in line with discharge licence conditions.
- During the operational phase an inspection and maintenance contract is to be implemented (through a management company/local authority) in relation to the proposed Class 1 fuel / oil separators, hydro brake, SuDS, foul, watermain and attenuation facilities.
- Emergency responses to potential contamination incidents will be established and form part of the CEMP. Potential emergencies and respective emergency responses include:
- Hydrocarbon spill or leak – Hydrocarbon contamination incidents will be dealt with immediately as they arise. Hydrocarbon spill kits will be prepared and kept in vehicles associated with the construction phase of the proposed development. Spill kits will also be established at proposed construction areas, for example, a spill kit will be established and mobilised as part of the turbine erection materials and equipment. Suitable receptacles for hydrocarbon contaminated materials will also be at hand.
- Significant hydrocarbon spill or leak – In the event of a significant hydrocarbon spillage, emergency responses will be escalated accordingly. Escalation can include measures such as installation of temporary sumps, drains or dykes to control the flow or migration of hydrocarbons and contaminated runoff will be contained, managed and pumped to a controlled area in line with Active Management including treatment through a suitably equipped treatment tank and Granular Activate Carbon (GAC) vessels. This process will be managed by the Environmental Clerk of Works (EnvCoW) in conjunction with a preidentified consultant (Environmental Clerk of Works (EnvCoW) specialist register) in regard to effective remediation, treatment and removal of hydrocarbon

contaminated water and soils Excavation and appropriate disposal of contaminated soils will be required in this instance.

- If a significant hydrocarbon spillage does occur, the contractor on behalf of the developer will have an approved and certified clean-up consultancy available on 24-hour notice to contain and clean-up the spill. The faster the containment or clean-up starts, the greater the success rate, the lower the damage caused and the lower the cost for the clean-up.
- Cementitious material – Cement / concrete contamination incidents will be dealt with immediately as they arise. Spill kits will also be established at proposed construction areas, for example a spill kit will be established and mobilised as part of the turbine erection materials and equipment. Suitable receptacles for cementitious materials will also be at hand.

In the event of a significant contamination or polluting incident the relevant authorities will be informed immediately

7.12 Difficulties In Compiling Information

No particular difficulties were encountered in compiling this section.

7.13 References

- Existing topographic survey information
- Ordnance Survey of Ireland online historical maps and aerial photographs
- GSI - On-line Geology Database. Aquifer Classification, Aquifer Vulnerability
- Soil Map of Ireland (Second Edition, 1980), National Soil Survey of Ireland, An Foras Talúntais
- Environmental Protection Agency (EPA) online water quality mapping; (https://gis.epa.ie/EPAMaps/)
- Water Framework Directive (WFD)
- OPW hydro-data (http://www.opw.ie/hydro-data)
- Met Eireann monthly climatological data (https://www.met.ie/)
- Causeway Geotech Ground Investigation – "Dunboyne Train Station" (March 2019)
- Meath County Development Plan 2021-2027
- NJS-JBAI-XX-XX-RP-HM-007-S3-Dunboyne Flood Risk Assessment
- DBFL report 163022-X-00-Z00-XXX-RP-DBFL-CE-0006 Engineering Services Report
- Dunboyne Water Supply - Groundwater Source Protection Zones, 2004, Prepared for Meath County Council.