

Proposed Large Scale Residential  
Development at Rathgowan, Mullingar,  
Co. Westmeath  
**Applicant: Marina Quarter Ltd.**

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# Volume I

Non-Technical Summary



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# 1 Introduction

The Environmental Impact Assessment Report (EIAR) sets out the results of the environmental assessments which have been completed for the proposed development to inform the planning consent process.

The preparation of a Non-Technical Summary (NTS) is a requirement under the EIA directive as one of the fundamental objectives of the EIA process is to “ensure that the public are made aware of the environmental implications of any decisions about whether to allow new projects to take place”.

This NTS provides a concise and comprehensive summary of the assessments carried out, description of the Project, its existing environment, the effects of the project on the environment, the proposed mitigation measures, and the proposed monitoring arrangements, where relevant.

The assessment has been completed as a statutory environmental assessment. The environmental impact assessment process has been completed in line with Directive 2014/52/EU, based on the draft guidance presented in Guidelines on the Information to be contained in Environmental Impact Assessment Reports, Draft (EPA 2017).

This NTS provides a concise and comprehensive summary of the assessments carried out, description of the development, the baseline environment, the effects of the project on the environment, any proposed mitigation/remediation measures, and proposed monitoring arrangements, where relevant.

Chapter 1 introduces the project and describes the scope and methodology of the EIA process. The consultation process which was undertaken is outlined and the environmental assessment team is also introduced. Chapter 2 provides details of the proposed development.

## 1.1 Characteristics of the Proposed Development

A full description of the proposed development is provided in Chapter 2 Project Description. In summary, the proposed development will consist of the construction 181 no. residential units and all associated ancillary development works. The development forms part of a larger three phase development. Phase 3 was permitted under 21/515 and is currently under construction.

## 1.2 Background and Purpose of the EIAR

The proposed development falls within the class of development types requiring an EIA under Schedule 5 of the Planning and Development Regulations 2001 (as amended). The proposed development is subject to Part 2 of this Schedule (Section 10) which deals with infrastructure projects where EIA is required for:

*10. b (iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectare in the case of other parts of a built up area and 20 hectares elsewhere*

*(in this paragraph “business district” means a district within a city or town in which the predominant land use is retail or commercial).*

The proposed project comprises the construction of 181 no. residential units, on a gross site area of c. 5.95ha. Given the size and scale of the project, it does not in itself trigger the needs for an Environmental Impact Assessment and it is noted that an Environmental Impact Assessment was completed for the adjacent Phase 3 application.

However, in this case it is considered that an EIAR is required with regard to the potential cumulative impacts of the development when considered in combination with the other phase. The entire masterplan area (394 no. residential units, 3 phases in total) encompasses an area of c. 13.58ha, which exceeds the threshold for site area set out above (i.e. urban development which would involve an area greater than 10 hectares in a built up area). The Supreme Court decision in the case of Fitzpatrick v ABP (2017) IEHC 585 (known as the “Apple Data Centre case”) was taken into account when determining that an EIA was required.

In cases where a project is mentioned in Part 2 but is classed as “sub-threshold development”, planning authorities are required under Article 103 of the 2001 Regulations to request an EIAR where it is considered that the proposed development is likely to have significant environmental effects.

The criteria for assessing whether a development would or would not be likely to have significant effects on the environment are outlined in Schedule 7 of the 2001 Regulations and require the submission of information on the following:

- Characteristics of the proposed development
- Location of the proposed development, in terms of environmental sensitivity of geographical areas likely to be affected by the proposed development and
- Characteristics of the proposed impacts, in terms of the potential significant effects of the proposed development.

The Department of Housing, Local Government and Heritage issued Guidance for Consent Authorities regarding sub-threshold development (2020). In considering the characteristics of a proposed development, paragraphs 5.8 and 5.9 state that:

*“One of the aims of the sub-threshold provisions contained in Irish EIA legislation is to address the issue of cumulations with other projects...Development of a large site e.g., redevelopment of an extensive brownfield site or housing development on a greenfield site, may be carried out on a phased basis, whether by one or a number of developers. The combination of individual projects may, over a period of years, have significant effects on the environment. While individual projects may not exceed mandatory EIA thresholds, the cumulative effect may be such that EIA would be appropriate in the case of some or all of the individual projects.”*

### 1.3 Report Structure

The EIAR has been prepared according to the ‘Grouped Format Structure’. This means that each topic is considered as a separate section and is drafted by the relevant specialists.

The EIAR is divided into three volumes as follows:

- Volume 1: Non-Technical Summary
- Volume 2: Main Environmental Impact Assessment Report
- Volume 3: Appendices

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Volume 1, the Non-Technical Summary (NTS), provides an overview of the project and the EIA in non-technical terms. The summary is presented similar to the grouped format structure and discusses each environmental topic separately.

Volume 2, the main EIA, provides the detailed information on the proposed development and the relevant environmental topics, with technical and detailed investigations of the topic areas as appropriate. This volume is prepared in the grouped format structure as it allows specialist studies to be completed for environmental topics in chapters.

Volume 3, the Appendices, contains supporting documentation and information on the EIA.

## 1.4 EIA Team

McCutcheon Halley Planning Consultants (MH Planning) are the planning consultants and project coordinators of the EIA. The EIA structure and consultant responsible for each of the chapters are presented in Table 1.1.

**Table 1.1 EIA Structure**

Chapter	Chapter Title	Consultant
1.	Introduction	MH Planning
2.	Site Location & Project Description	MH Planning
3.	Alternatives Considered	John Fleming Architects
4.	Population & Human Health	MH Planning
5.	Land, Soils & Geology	Enviroguide Consulting
6.	Hydrology & Hydrogeology	Enviroguide Consulting
7.	Air Quality	AWN Consulting
8.	Climate	AWN Consulting
9.	Noise & Vibration	AWN Consulting
10.	Landscape & Visual Impact	Forestbird Design
11.	Material Assets – Waste	AWN Consulting
12.	Biodiversity	Enviroguide Consulting
13.	Material Assets – Traffic & Transport	Tobin Consulting Engineers
14.	Material Assets – S Infrastructure & Utilities	Tobin Consulting Engineers
15.	Cultural Heritage & Archaeology	John Cronin & Associates
16.	Significant Interactions of Impacts	MH Planning
17.	Summary of Mitigation Measures & Monitoring	MH Planning
18.	Screening for Major Accidents	MH Planning

The details of each consultancy within the EIAR team are provided in the table below. The qualifications of consultants responsible for each discipline is provided in the introduction to each chapter.

**Table 1.2 Details of Each Consultancy**

Consultancy	Address	Phone	Email
MH Planning	6 Joyce Square, Barrack House, Ballincollig, Cork.	021-4208710	<a href="mailto:info@mhplanning.ie">info@mhplanning.ie</a>
John Fleming Architects	The Tree House, 17 Richview Office Park, Clonskeagh, Dublin, D14 XR82.	01 6689888	<a href="mailto:info@jfa.ie">info@jfa.ie</a>
Tobin Consulting Engineers	Fairgreen House, Fairgreen Road, Galway.	094-565211	<a href="mailto:galway@tobin.ie">galway@tobin.ie</a>
Enviroguide Consulting	Head Office, 3D, Core C, Block 71, The Plaza, Park West, Dublin 12.	01-5657430	<a href="mailto:info@enviroguide.ie">info@enviroguide.ie</a>
AWN Consulting	The Tecpro Building, Clonshaugh Business and Technology Park, Dublin 17	01-8474220	<a href="mailto:Ciara.nolan@awnconsulting.ie">Ciara.nolan@awnconsulting.ie</a>
John Cronin & Associates	3a, West Point Trade Centre, Ballincollig, Cork.	021-4810311	<a href="mailto:info@johncronin.ie">info@johncronin.ie</a>
Forestbird Design	Cloyne Meadows, Commons West, Cloyne, Co. Cork.	085-7410232	<a href="mailto:mike@forestbirddesign.com">mike@forestbirddesign.com</a>

## 1.5 Consultation

The following prescribed bodies have been consulted in relation to the general scope of the EIAR.

- Department of Housing, Local Government, and Heritage
- Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media
- Department of Education
- Geological Survey Ireland (Department of the Environment, Climate and Communications)
- The Heritage Council
- Office of Public Works (OPW)
- Transport Infrastructure Ireland (TII)
- The National Transport Authority (NTA)
- The Health and Safety Authority (HSA)
- The Health Service Executive (HSE)
- Inland Fisheries Ireland
- Bat Conservation Ireland
- Uisce Éireann
- An Taisce
- Bord Gais
- ESB
- Environmental Protection Agency
- Fáilte Ireland

Responses received are presented in Appendix 1.1

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## 1.6 Cumulative Impacts

Projects considered for their potential cumulative impacts with the proposed development are identified in Chapter 1. Within the EIAR other disciplines may have identified further projects which are considered to be relevant to their assessments. No significant cumulative impacts have been identified.

## 2 Site Location and Project Description

According to the EIA Directive, an EIAR must provide a project description that includes information on the project's site, design, scale, and other relevant elements. The 2014 Directive stipulates in Recital 22 that:

*“In order to ensure a high level of protection of the environment and human health, screening procedures and environmental impact assessments should take account of the impact of the whole project in question, including, where relevant, its subsurface and underground, during the construction, operational and, where relevant, demolition phases”.*

This chapter complies with the EIA Directive's criteria by giving information about the proposed project's location, size, and features.

This chapter of the EIAR has been prepared by Saoirse Kavanagh, Executive Planning Consultant of McCutcheon Halley Planning Consultancy.

### 2.1 Description of Existing Environment

The subject site for Phase 1 and 2 measures 5.95ha, and forms part of a larger masterplan area of c. 17.9ha. The masterplan site is located within the townland of Rathgowan, within the development boundary of Mullingar, Co. Westmeath, to the northwest of the town centre.

The subject site (Phase 1 and 2) is located to the southeast of the R394 (known locally as the 'C-Link' road) and north of Ashe Road. The permitted Phase 3 site is located northwest of the R394. The location of the subject site and the permitted Phase 3 site area is shown in Figure 2.1 in Chapter 2 of the EIAR.

The masterplan site is surrounded by medium density housing, mainly comprising two-storey residential buildings arranged around central green spaces in distinct neighbourhoods.

The lands immediately adjoining the subject site (Phase 1 and 2) to the east and south have been developed for residential units and generally comprising two-storey detached and semi-detached dwellings. The subject site is relatively flat and comprises grass with some hedgerows.

The lands immediately adjoining the Phase 3 site to the south and southwest consist of 5 no. residential dwellings as well as a now demolished detached house (c. 1910) that was identified as a

protected structure (Ref. No. 15310001). The lands to the west and north of the Phase 2 site consist of agricultural land. The Phase 3 site also has a relatively level topography and comprises of grassland with some hedgerows/treeline boundaries.

## 2.2 Description of Proposed Development

The overall masterplan (Phases 1, 2 and 3) comprises 394 no. residential units, a creche, and all ancillary development works including access, footpaths, cycle paths, car parking, bicycle parking, 1 no. pumping station, drainage, landscaping, lighting, and amenity areas. Access to the site will be via the existing entrance onto the C-Link road which traverses the masterplan area.

The current proposal (Phase 1 and 2) includes 181 no. residential units. The permitted Phase 3 includes 213 no. residential units and is currently under construction. The current proposal and overall masterplan provide a mix of 1 bed, 2 bed, 3 bed, and 4 bed residential units within a mix of apartments/maisonettes and houses.

Phase 1 and 2 (the current proposal) consist of 7 cells (A to G) which provide a variety of house types. These cells are arranged around a central open space. A landscaped buffer strip is provided along the western boundary to the C-Link which will act as a noise and visual buffer. This buffer strip has been designed to provide some areas of useable public open space with seating providing. A pumping station is located in the northern corner of the site, to the east of the site access. The area around this pumping station will be landscaped to provide a high quality public open space. A central cycle route is provided through the site in a north-south direction which will provide an alternative pedestrian and cyclist access to the Ashe Road to the south.

The Phase 3 (permitted) layout includes a range of unit types arranged in blocks throughout the site. It includes four areas of public open spaces which are dispersed throughout the site to ensure every home has easy access to a useable open space. The permitted creche is located along the northern boundary of the site, adjacent to the vehicular access to the site. A landscaped buffer strip is provided along the eastern edge of the site, providing a buffer between the R394 and the permitted development. Construction has commenced on this phase of development.

The granted Phase 3 development included a creche which was designed to cater for the entire masterplan development (i.e. all 3 phases). This permitted creche measures 429sqm and will cater for c. 97 no. children.

The current proposal includes a total of 0.85ha (8,500sqm) public open space and the permitted Phase 3 application includes a total of 1.087ha public open space. Overall, the entire masterplan area provides 1.937ha (19,370sqm) public open space.

The proposed Phase 1 and 2 development includes 300 no. cycle parking spaces and 265 no. car parking spaces. Phase 3 provides a total of 661 no. cycle parking spaces (including 371 no. spaces provided via rear garden access) and 336 no. car parking spaces. The overall masterplan area therefore will provide a total of 961 no. cycle parking spaces and 601 no. car parking spaces.

## 2.3 Construction Process

### 2.3.1 Construction Site Establishment

A temporary site compound will be set up during the construction stage of the works. A temporary site compound is currently located on the Phase 3 lands to facilitate the construction of the Phase 3. This will be relocated to the central open space within the current subject site to facilitate the construction of Phase 1 and 2.

### 2.3.2 Working Hours

The proposed construction working hours will be from 8am to 6:30pm Monday to Friday, and 8am to 1pm on Saturdays. No construction work will take place on Sundays or public holidays, except works necessary for health and safety reasons or to protect the environment. An Outline Construction Traffic Management Plan has been prepared by Tobin Consulting Engineers and is submitted with the planning application.

### 2.3.3 Earthworks

During construction of foundations, underground services and utilities, and flood attenuation tanks, site earthworks will be required. Initial topographical and utility surveys have been carried out by Tobin Consulting Engineers. Further site investigations will be carried out by the contractor prior to construction. Any contaminated soils will be segregated and removed off-site in accordance with relevant waste legislation.

### 2.3.4 Phasing

Phase 3, located north of the current subject site, was granted by Westmeath County Council in December 2022 and is currently under construction on site. Glenveagh Homes intends to have 50-100 homes completed and occupied by December 2023.

The current application consists of Phase 1 and Phase 2. It is intended that Phase 1 will commence following a grant of permission with Phase 2 commencing as Phase 1 is completed.

### 2.3.5 Traffic Management

An Outline Construction Traffic Management Plan has been completed by Tobin Consulting Engineers which outlines traffic management measures to be implemented during the construction phase. The contractor will be contractually required to ensure that the elements of the outline Construction Traffic Management Plan shall be incorporated into the final TMP.

## 3 Alternatives Considered

This chapter of the EIAR has been prepared by Saoirse Kavanagh, Executive Planning Consultant of McCutcheon Halley Planning Consultancy.

The EIA Directive 2014/52/EU notes that the following is required in relation to the consideration of alternatives in the preparation of the EIAR:

*‘A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects’.*

The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with ‘an indication of the main reasons for selecting the chosen option’. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option.

Alternatives may also be described at six levels: do-nothing alternative, alternative locations, alternative layouts, alternative design, alternative processes, and alternative mitigation measures.

### **3.1 Alternative Location**

The subject site belongs to Glenveagh Homes Ltd., is zoned for residential development and is accessible by public transport. It is an extension to existing residential areas in the western suburbs of Mullingar town. Therefore, the selected location is considered the most suitable location for the proposed development.

### **3.2 Alternative Uses**

When the land use zoning, do-nothing scenario, and planning policies in the development plan are analysed, the proposed development would be the best option for the site. An alternative use for the subject site would not meet the housing targets by Westmeath County Council (Please see Chapter 4 Population and Human Health Chapter) as well as the land use zoning.

Considering these objectives and targets, the proposed development has emerged as the best use option for the site.

### **3.3 Alternative Layouts**

Three alternative layouts (Alternatives A, B and C) were considered for the site before settling on the chosen layout (alternative D). Alternative A comprised the layout permitted by Westmeath County Council under planning references 21/97 and 21/139 which provided 181 no. dwellings and provided pockets of urban space throughout the site. Alternative B includes the layout which was submitted to Westmeath County Council with the Section 247 meeting request and provide 181 no. residential units arranged around a large central open space. Alternative C progressed from alternative B and was submitted to Westmeath County Council with the Section 32B meeting request. This alternative layout provided safer pedestrian routes through the site and a landscaped buffer along the sites’ western boundary. Alternative D, the final layout, progressed from alternative C and further improved the routes for pedestrians and cyclists. It also includes a plaza in the south-western corner of the site in front of the proposed apartments.

Throughout the design evolution of the subject site, the advantages and disadvantages of each early and alternative option were examined, with solutions considered in detail and the more favourable elements threaded through to the final and preferred strategy. As a result, it is our opinion that the proposed final layout and design strategy outlined in Alternative D, the final layout, is the most appropriate scheme with the highest quality of residential amenity and least environmental effects. The final scheme is consistent with both local and national planning policy and will create a new residential community with a strong identity, within a built-up urban environment.

### 3.4 Alternative Process

Due to the nature of the current proposal (i.e. a residential development greater than 100 dwellings), where the only option is to submit a Large-Scale Residential Development (LRD) planning application to the Planning Authority, it was not considered necessary to consider alternative processes for the proposed development.

## 4 Population and Human Health

This chapter of the EIAR was prepared by Saoirse Kavanagh, Executive Planning Consultant of McCutcheon Halley Planning Consultancy and assesses the potential impacts of the proposed development on population and human health that are not covered elsewhere in the EIAR. It also details the proposed mitigation measures where necessary.

The appraisal of the likely significant effects of the proposed development on population and human health was conducted by reviewing the current socio-economic environment in the EIAR study area. This comprised site visits and visual assessments of the proposed site and the surrounding area, as well as an analysis of aerial photography and Ordnance Survey (OS) mapping.

The Study Area for the assessment of potential impacts on Population and Human Health includes 3 no. Electoral Divisions (EDs) of Mullingar Rural, Mullingar Urban North, and Mullingar Urban South.

### 4.1 Population

In The Mullingar Town Local Area Plan 2014 – 2020 identifies that there will be significant population growth in Mullingar and Westmeath as a whole. Mullingar is anticipated to experience a significant increase in population from 20,153 in 2016 to 26,003 in 2027. Therefore, the projected housing need that is expected in Mullingar in tandem with its projected population growth. According to the figures provided in the Westmeath County Development Plan 2021 – 2027, the Mullingar Town Local Area Plan 2014 – 2020, as well as the associated Census, calculations reveal that in order to cater to such rapid growth, an additional 2,974 residential units in total will be required to meet this population projection.

When considering all three Mullingar EDs, the 2016 Census found that 8.9% of the population were of preschool age (0-4) within the Mullingar Rural ED, 8.1% were in this category in the Mullingar North Urban, and 8.6% of the population in the Mullingar South Urban ED respectively. When all three EDs

are amalgamated, a total of 8.6% of the population is of pre-school age. This is slightly higher than the figures identified in County-wide (7.2%) and across the State (6.9%).

The age identified as primary school children age is classified by ages 5-12 years, where this age group encompasses 14.0% of the Rural Electoral Division, 11.7% in the North Urban ED, as well as 7% of the South Urban ED. In total, this age group encompasses 12.8% of all 3 no. EDs in Mullingar, which is higher than the Westmeath and state average of average of 10.2%.

The post-primary age groups, ages 13-18, encompasses 9.2% of the population in the Rural ED, 7.5% in the North Urban ED, and 3.9% in the South Urban ED. In total, 7.8% of this age group are present in all 3 no. EDs. In all of Westmeath County, 7.2% of the population fall within this age group, which is slightly lower than the EDs and the state percentage of 9.2%.

There are 38.0% of adults (age 19-44) in the Rural ED and 38.7% of this age group in the North Urban ED. The percentage of residents in this age bracket for the South Urban ED are 31.8%. In total, 38.7% of the population in all 3 no. EDs are in this age bracket, which is generally consistent with Westmeath's figure at 35.0%. Further, all 3 no. EDs encompass a population percentage of 21.2% and is slightly lower than Westmeath's average of 24.2% of the county population.

The aging population, classified through age group 65+, represents 8.7% of the population in the Rural Urban ED, 12.4% of the North Urban ED, and 11.0% of the South Urban ED. Overall, about 10.2% of the population in all 3 no. EDs are within this age cohort. This is slightly lower than Westmeath County at 12.8% as well as the state average of 13.4%.

## 4.2 Impact Assessment

In identifying potential impacts and receptors, consideration was given to the proposed residential scheme and the identified receiving environment. The principal potential receptors that will be affected by the development proposals have been identified in the following sections.

- Residential Areas in Proximity;
- Community Facilities and Services including schools and creches;
- Local Amenity
- Economic Activities

## 4.3 Do Nothing Scenario

If the development were not to proceed there would be no immediate impact on the existing population, economic activity, or community services and facilities in the town. However, due to the proposed amenity trail and community creche on the site, if the development does not occur, the town will not accommodate for the high demand for a large childcare facility, as there is a need for childcare provision in the town.

The site is zoned as 'Proposed Residential' within the Mullingar Local Area Plan 2014-2020 (as extended). Due to the nature of development providing a residential scheme with amenity areas suitable for town centre environments, the consideration of alternative sites is not necessary. The

consideration of an alternative site would equate to a 'do-nothing' scenario, which in turn means the site will not be developed in accordance with its allocated zoning.

Both the Westmeath County Development Plan and the Mullingar Local Area Plan note the importance of prioritising town growth in a sustainable manner, where it is an objective in both plans to promote sustainable connectivity and modes of transportation. Therefore, the implementation of an amenity walkway/cycleway further encourages sustainable development and connectivity. If the 'do nothing scenario' is applied and the development is not implemented, there will be a lack of sustainable connections within the northwest of Mullingar Town, where residents will depend on a car to access the amenities, institutions, and services in the immediate area.

#### 4.4 Construction Phase Impacts

General construction activities and excavations may give rise to emissions to air or surface water and may generate noise and vibration. The details of the construction phase of the project are provided in the preliminary Construction and Environmental Management Plan (CEMP) by Tobins Consulting Engineers (Appendix 2.1). To summarise, the development will be constructed and expected to be completed within 24 months in duration with each phase taking 18 months to complete. As this is an estimation, the construction of both phases are expected to overlap to be completed within the 2 year period.

The construction of this project will be short term and is not likely to result in any significant changes to the population and settlement patterns. Generally, the potential impacts arising during the construction phase relate to short term impacts to quality of life, including visual impact/amenity, noise, air quality, and transport. Where relevant, these impacts have been considered in the relevant chapters of the EIAR and will be minimised or mitigated where appropriate. It is unlikely that these impacts will be of a scale to either encourage people to move from the area or discourage people from moving to the area. No significant impacts are anticipated as a result of the construction phase of the development. The construction phase of the project is estimated to take 24 months and is not likely to result in any changes to the population and settlement patterns.

The project is in accordance with the statutory zoning objective. There will be no severance of lands or loss of rights of way as a result of the proposed development. In general, the construction phase impacts on local amenity and receptors identified in proximity will be mainly related to noise, air quality and traffic. These are dealt with in the relevant chapters of this EIAR.

There will be indirect benefits to other industries as a result of demand for construction materials and services. The loss of the agricultural lands is anticipated to have a neutral effect as the lands were under the ownership of the applicant. It is anticipated that the construction phase of the project will result in likely positive short term moderate effects locally and within the wider Mullingar area.

In general, the noise impact associated with the construction phase is to be temporary only and will be limited to agreed construction hours and limited beyond working hours as far as possible. The assessment identified that during construction the chief source of noise emissions will be from plant used onsite. Overall, the impacts from the construction phase will be slight to moderate, localized, and short term in duration.

Given that development of the site will be on-going for approximately 2 years before the final phase is complete residents can be expected to become somewhat habituated to background levels of traffic and disturbance. In general, the impact of construction traffic is assessed as moderate negative, but short term.

As with any construction site, there will be potential risks to the health and safety in terms of injury or death of construction personnel on-site due to the usage of large, mobile machinery as well as heavy equipment and materials. Proposed mitigation measures are outlined in the preliminary Construction and Environmental Management Plan, and in Chapter 9 Noise and Vibration to manage construction activities and traffic movements as well as limiting noise and disturbance. The Air Quality Assessment (Chapters 7) identified that the greatest potential impact on air quality during the construction phase is from construction dust emissions and the potential nuisance dust. A number of mitigation measures are proposed, and following implementation of these measures potential significant impacts are unlikely and any effects will be negative, short-term and imperceptible with respect to human health. Following implementation of these measures the construction phase of the project adverse effects will be unlikely, neutral, and short term.

The phasing sequence is presented in the CEMP prepared by Tobin Consulting Engineers. Cumulative impacts such as visual impact/amenity, noise, traffic and air quality are anticipated cumulative impacts. However, it is important to note that this will be temporary and will only occur over the course of construction.

## 4.5 Operational Phase

Measures to avoid potential negative impacts on population and human health have been fully considered in the design of the project and are integrated into the final layout and design. Compliance with the layout and design will be a condition of the permitted development. As such no mitigation measures are required.

## 4.6 Mitigation and Monitoring

No likely negative impacts have been identified for population, or land use, accordingly no mitigation measures are required.

The proposed development has been designed to the highest building standards in accordance with current best practice guidance and incorporates sustainable development measures such as exhaust heat air pumps, and sustainable urban drainage features.

In relation to demolition, site enabling works and construction phases, health and safety risks will be managed in accordance with the Safety, Health, and Welfare at Work (Construction) Regulations, 2013.

No specific monitoring is proposed. In general, monitoring will be undertaken by the Building Regulations certification process and by the requirements of specific conditions of a planning permission. Monitoring is outlined in the interacting chapters – Air, Noise, and Traffic.

The proposed mitigation measures will avoid, prevent, or reduce impacts on the human environment during the construction and operational phases of the proposed development.

It is anticipated that the proposed development will realise significant positive overall economic and social benefits for the local community and the wider Mullingar area. Strict adherence to the mitigation measures recommended in this EIAR will ensure that there will be no negative residual impact or effects on Population and Human Health from the construction and operation of the proposed scheme. Indeed, the delivery of much needed housing will realise a likely significant positive effect for the local area.

## 5 Land, Soils and Geology

An assessment of the potential impact on the existing land, soil and geological environment was carried out by Enviroguide Consulting for the Site of the Proposed Development.

The assessment was carried out taking cognisance of the appropriate national guidelines and standards for Environmental Impact Assessment using data collected from a detailed desk study, results of the ground investigation, a site walkover survey and review of all relevant drawings and documents pertaining to the Site and Proposed Development. The results of the assessment provided information on the baseline conditions at the Site. A detailed assessment of the potential impact was undertaken, and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact associated with the Proposed Development.

The full description of the Proposed Development is outlined in Chapter 2 'Development Description' of this EIAR.

The Construction Phase of the Proposed Development will include the excavation of 12,020m<sup>3</sup> of soil and subsoil to depths of up to 1.2mbGL to achieve formation levels, to 1.0mbGL for foundations and to 3.5mnGL for drainage and infrastructure (Tobin Consulting Engineers, 2023b). Where possible, it is intended to retain and re-use suitable excavated soil and subsoil at the Proposed Development for engineering fill and landscaping.

Based on the preliminary cut & fill analysis (Tobin Consulting Engineers, 2023a), the construction of the Proposed Development will require the importation of 5,200m<sup>3</sup> soils to achieve the finished floor levels and road levels. There will also be a requirement for the importation of aggregates for the construction of the Proposed Development (e.g., granular material beneath road pavement, under floor slabs and for drainage and utility bedding / surrounds etc.).

An Outline Construction and Environmental Management Plan (CEMP) (Tobin Consulting Engineers, 2023a) and Construction Demolition & Operational Waste Management Plan (CDOWMP) (Tobin Consulting Engineers, 2023b) have been prepared as part of the planning application. The appointed Contractor will further develop the CEMP and CDOWMP to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The CEMP and CDWMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

Mitigation measures will be adopted as part of the construction works for the Proposed Development. The measures will address the main activities of potential impact which include:

- Control and Management of Earthworks;
- Control and Management of Soils and Stockpiles;
- Management and Control Procedures for the Exportation of Surplus Soils and Bedrock;
- Management and Control Procedures for the Importation of Fill Materials;
- Control and Handling of Cementitious Materials;
- Control and Handling of Fuel and Hazardous Materials; and
- Accidental Release of Contaminants.

The Operational Phase of the Proposed Development consists of the typical activities in a residential area and with the exception localised gardening works by residents, there will be no bulk excavation of soils or bedrock or infilling of waste.

Overall, there will be no significant adverse impacts on, or associated with the land, soils and geology attributed to the Proposed Development.

There will be an unavoidable land take of 5.95 Ha for the Construction of the Proposed Development and the land use at the Site will change from greenfield agricultural land to residential. The potential impacts on the underlying soils are unavoidable, however the Proposed Development is permitted in principle under the current 'Proposed Residential' zoning objectives to provide for residential development, associated services and to protect and improve residential amenity under the Mullingar Local Area Plan 2014-2020 as extended to 2025 (WCC, 2014).

## 6 Hydrology and Hydrogeology

An assessment of the potential impacts on the existing hydrological and hydrogeological environmental was carried out by Enviroguide Consulting for the Proposed Development.

The assessment was carried out taking cognisance of appropriate national guidelines and standard for the Environmental Impact Assessment using data collected from detailed desk study the results of the ground investigation, a site walkover survey and review of all relevant drawings and documents pertaining to the Proposed Development and site. The results of the assessment provided information on the baseline conditions at the site. A detailed assessment of the potential impacts was undertaken , and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact associated with the Proposed Development.

The full description of the Proposed Development is outlined in Chapter 2 'Development Description' of this EIAR.

The site is located within the Lower Shannon Water Framework Directive (WFD) Catchment (catchment I.D.: 25A) and the Brosna\_SC\_010 sub catchment ( Sub-catchment I.D.L 25A\_10). The majority of the site is within the Brosna\_020 sub-basin while the southeast corner of the site is within

the Brosna\_030 sub-basin. There are a series of land drains within the area which were constructed as part of the Brosna Arterial Drainage Scheme which discharge to the Brosna River.

The potential receptors within the receiving water environment are the underlying Lucan formation bedrock aquifer, the Inny and Clara Groundwater bodies, the lands drains part of the Brosna Arterial Drainage Scheme, the Brosna River, Lough Ennel and downstream waterbodies. There is no pathway identified to the one (1No.) groundwater user located 1.9km to the northwest of the site. Groundwater flow pathways in the Clara bedrock will be short (between 30 and 300m) and the groundwater flow direction is to the northeast. There is no hydraulic connection identified between the site and the Royal Canal Main Line.

Surface water from the Proposed Development will be managed in accordance with the principles and objectives of Sustainable Drainage Systems (SuDS) and the Greater Dublin Sustainable Drainage System (GSDS) to treat and attenuate water before discharging at green field runoff rates to the surface water network for the approved Phase 3 residential development (Planning Reference No. 22/515) located along the R394-C Link Road and ultimately discharging to the Brosna River.

Foul water for two thirds the Proposed Development will discharge under gravity to the existing UE 225mm foul sewer at the point of connection in the southwest corner of the site. Foul water for the remaining one third of the Proposed Development will be pumped via the pumping station located in the north of the site (previously granted planning by WCC (Planning Reference No. 22/515)) to a 110mm PE rising main on the R394 C-Link Road along the northwest boundary of the site before discharging to the existing UE 525mm foul sewer located circa. 80m north of the Proposed Development. It is noted that the pump station has been designed with consideration to the Proposed Development to ensure that there is sufficient capacity to accept foul water from the Proposed Development.

Water supply to the Proposed Development will be from the two (2No.) existing UE watermains located within the R394 C-Link Road and Ashe Road.

The UE Confirmation of Feasibility letter dated the 3rd July 2023 (COF Reference: CDS23002571) states that the both the foul water and the water supply connections are feasible subject to upgrades. As outlined in the Civil Design Report (Tobin Consulting Engineers Ireland, 2023 included in Volume 3 of this EIAR) these upgrades have been incorporated into the design for the Proposed Development as per UE requirements.

An Outline Construction and Environmental Management Plan (CEMP) (Tobin Consulting Engineers, 2023a) has been prepared as part of the planning application. The appointed Contractor will further develop the CEMP to provide detailed construction phasing and methods to manage and prevent any potential emissions to the receiving water environment having the relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

The CEMP will be implemented for the duration of the Construction Phase, covering construction and waste management activities that will take place during the Construction Phase of the Proposed Development.

Mitigation measures will be adopted as part of the construction works on the site. The measures will address the main activities of potential impact which include:

- Control and Management of Water and Surface Runoff;
- Management and control of imported soil and aggregates from off-site sources;
- Fuel and Chemical handling, transport, and storage; and
- Accidental release of contaminants – notify relevant statutory authorities.

During the Operational Phase surface water runoff from the site will be managed in accordance with the principles and objectives of Sustainable Drainage Systems (SuDS) and the Greater Dublin Sustainable Drainage System (GSDS) to treat and attenuate water prior to the outfall points from the site. Ongoing regular maintenance of the proposed drainage including the SuDS measures in accordance with CIRIA SuDS Manual C753 will be incorporated into the overall management strategy for the Proposed Development.

Overall, there are no significant residual impacts on hydrology and hydrogeology anticipated and there will be no impact to the existing WFD Status of water bodies associated with the Proposed Development including the Brosna River (Brosna\_010 to Brosna\_040), the Ennell lake waterbodies and the Inny and Clara groundwater bodies as a result of the Proposed Development taking account of design avoidance and mitigation measures where required.

## 7 Air Quality

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality associated with the proposed residential development at Rathgowan, Mullingar, Co. Westmeath.

In terms of the existing air quality environment, baseline data and data available from similar environments indicates that levels of nitrogen dioxide, particulate matter less than 10 microns and less than 2.5 microns and are generally well below the National and European Union (EU) ambient air quality standards.

Impacts to air quality can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. In terms of the operational stage air quality impacts will predominantly occur as a result of the change in traffic flows on the local road links near the proposed development.

Any potential dust impacts can be mitigated through the use of best practice and minimisation measures which are outlined in this report. Therefore, dust impacts will be short-term, negative and imperceptible at all nearby sensitive receptors. The local air quality modelling assessment concluded that levels of traffic-derived air pollutants resulting from the development will not exceed the ambient air quality standards either with or without the proposed development in place. Using the assessment criteria outlined in Transport Infrastructure Ireland's 2022 guidance document 'Air Quality Assessment

of Specified Infrastructure Projects – PE-ENV-01106’ the impact of the development in terms of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> emissions is long-term, direct, neutral and imperceptible.

The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of the construction of the proposed development will be short-term, negative and imperceptible with respect to human health. Operational phase predicted concentrations of pollutants are predicted to be significantly below the EU standards, the impact to human health is predicted to be long-term, direct, neutral and imperceptible.

No significant impacts to air quality are predicted during the construction or operational phases of the proposed development.

## 8 Climate

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on climate associated with the proposed residential development at Rathgowan, Mullingar, Co. Westmeath.

The existing climate baseline can be determined by reference to data from the EPA on Ireland’s total greenhouse gas (GHG) emissions and compliance with European Union’s Effort Sharing Decision “EU 2020 Strategy” (Decision 406/2009/EC). The EPA estimate that Ireland had total GHG emissions of 62.11 Mt CO<sub>2</sub>eq in 2021. This is 3.29 Mt CO<sub>2</sub>eq higher than Ireland’s annual target for emissions in 2021. However, the EPA predict that Ireland can achieve compliance with the GHG targets up to 2030 provided full implementation of the Climate Action Plan and use of the flexibilities available.

There is the potential for release of a number of greenhouse gas emissions to atmosphere during the full lifecycle of the proposed development including construction and operation. GHG emissions associated with the proposed development are predicted to be a small fraction of Ireland’s total 2021 GHG emissions which is the baseline scenario.

The changes in traffic volumes associated with the operational phase of the development were substantial enough to meet the assessment criteria requiring a detailed climate modelling assessment, as per Transport Infrastructure Ireland (TII) 2022 guidance “PE-ENV-01104: Climate Guidance for National Roads, Light Rail and Rural Cycleways (Offline & Greenways) – Overarching Technical Document”. The proposed development is not predicted to significantly impact climate during the operational stage. Increases in traffic derived levels of CO<sub>2</sub> have been assessed against Ireland’s obligations under the EU 2030 non-ETS target and Ireland’s carbon emission ceilings. Impacts to climate are deemed imperceptible and long-term with regard to CO<sub>2</sub> emissions.

The proposed development has been designed to reduce the impact on climate where possible during operation. The proposed development will comply with the NZEB standards and has aims to achieve an energy efficient design. Once mitigation measures are put in place, the effect of the proposed development in relation to GHG emissions is considered long-term, minor adverse and not significant in EIA terms.

An assessment was conducted to determine the vulnerability of the proposed development to climate change once operational, as per the TII 2022 guidance. This involves an analysis of the sensitivity and exposure of the development to future climate hazards which together provide a measure of vulnerability. Overall the proposed development has a worst-case low vulnerability to the various climate hazards and therefore no significant risk was identified.

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

## 9 Noise and Vibration

Chapter 9 of the EIAR was completed by Enviroguide Consulting and provides information on the assessment of the noise and vibration impacts on the surrounding environment during both the construction and operational phases of the proposed development.

The study has been undertaken using the following methodology:

- Environmental noise surveys have been conducted at locations representative of the closest noise sensitive locations to the site;
- A review of the most applicable standards and guidelines has been carried out in order to set a range of acceptable noise and vibration criteria for the construction and operational phases of the proposed development;
- Predictive calculations have been performed to determine the noise and vibration impact on the nearest sensitive locations during the construction phase;
- An assessment of the likely key sources of noise associated with the operational phase are identified and potential impacts calculated; and
- A schedule of mitigation measures has been proposed for both the construction and operational phases to reduce, where necessary, any significant noise and vibration impacts arising from the development; The inward impact of noise from the surrounding environment on the proposed buildings has also been assessed to determine the requirements for additional noise mitigation to provide suitable residential amenity for the occupants of the site.

### 9.1 Baseline Noise Environment

The baseline noise environment at the closest noise sensitive locations to the proposed development and across the development site is influenced by road traffic along the surrounding road network, activities within neighbouring residential areas and general environmental noise sources. The range of noise levels measured are typical of a suburban environment.

### 9.2 Construction Phase

Construction noise calculations have been performed representing typical noise levels associated with the construction of the various phases of work on site. The results of the assessment have determined that construction works can operate within the construction noise limits adopted for the project at

distances beyond 20m. This indicates that potential exceedances of the construction thresholds may occur when construction activities are occurring within 20m from residential dwellings along the southern boundary, however due to the dynamic nature of construction activities this potential impact is temporary in nature.

A range of noise mitigation measures have been included to reduce construction noise levels at the closest site boundaries including the inclusion of a solid construction site hoarding along noise sensitive boundaries. The application of binding noise limits and hours of operation, along with implementation of appropriate noise control measures, will ensure that the noise impact is controlled to within the construction significance thresholds.

Vibration impacts during the construction phase of the proposed development are not significant at the nearest sensitive buildings due to the type of construction activity on site, the low levels of vibration associated with same and the distances to nearest sensitive buildings. Site activities will be managed so as not to exceed the vibration limits set out in Chapter 9.

### 9.3 Operational Phase

The main potential sources of outward noise from the development during the operational phase relate to traffic flows to and from the development via public roads and any mechanical and electrical plant used to service the proposed buildings. The primary sources of outward noise in the operational context are deemed to be long term in nature. There are no vibration sources associated with the operational phase.

The assessment has determined that the above sources will not generate any significant noise impact at existing noise sensitive locations in the surrounding environment. Residential properties within the development itself are the closest noise sensitive locations to any noise sources generated within the site.

A range of noise mitigation and best practice control measures have been included within the assessment to control noise levels at the closest noise sensitive properties within the development once operational.

## 10 Landscape and Visual Impact Assessment

### 10.1 Methodology

The assessment is based on the recommendations in the Guidelines for Landscape and Visual Impact Assessment (GLVIA) as published by the Landscape Institute (UK) and the Institute of Environmental Management and Assessment (3rd Edition, 2013). The assessment also considers the landscape character assessment within the Westmeath County Development Plan 2021-2027.

The LVIA, which was carried out during the Summer of 2023, was undertaken through a combination of desk studies and field surveys. The desk studies involved assessment of satellite imagery, Google Street View, historic and ordnance survey mapping, background search of the relevant policies from

the local council and analysis of the Zone of Theoretical Visibility (ZTV). The site-work stage involved the verification of nearby views from the initial desk-based study. Field notes were recorded in relation to the likes of topography, land use, significant landscape features, sensitive visual receptors and overall landscape character.

When assessing the potential impacts on the landscape and visual amenity resulting from a proposed development, the criteria considered include, landscape character sensitivity, magnitude of likely impacts, significance of landscape effects.

## 10.2 Receiving Environment

The northwest fringe of Mullingar town has established links back to the historic core through the R393. The surrounding terrain is gently undulating, with only modest changes in elevation limiting the range and number of views. The site is accessed along its northern boundary from the R394, which serves as the spine between the Permitted Phase 3 site and proposed Phase 1/2 site. North and west of the site lie agricultural environs. Both north and west of the site, residential development in the form of housing estates flanks the R394 northeast and southwest of the site giving the local character a suburban form.

The surrounding environment is of low sensitivity with high capacity to receive developments of its kind. Protected structures in the vicinity of the site are not expected to be impacted by the proposals.

## 10.3 Potential Effects

### 10.3.1 Construction Phase

Construction of the development is expected to have a temporary, moderate at the highest negative impact to the landscape and visual amenity with the removal of vegetation and increased construction activity, cranes and hoarding. No significant impacts are expected.

### 10.3.2 Operational Phase

In the operational phase, the highest negative landscape impacts are expected to be permanent and slight deriving from the removal of the existing field boundary vegetation within the site, loss of agricultural land and use of material that are different to the existing estates. At the same time the removal of the O/H cables will positively impact the landscape character as well as views from the south and west. The highest negative operational impacts are expected along the northern boundary for R1, where existing vegetation is not retained. This is expected to be of moderate significance. No significant impacts are expected.

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## 10.4 Mitigation Measures

### 10.4.1 Construction Phase

No significant impacts are expected to derive from the proposed development; therefore, no mitigation measures are necessary. Nevertheless, the developer is proposing temporary hoarding to be put in place to reduce visual intrusion of works to the surrounding area.

### 10.4.2 Operational Phase

No significant impacts are expected to derive from the proposed development; therefore, no mitigation measures are necessary.

## 10.5 Residual Impacts

No residual impacts are expected to derive from the proposed development.

## 11 Material Assets: Waste

This chapter of the EIAR was carried out by Enviroguide Consulting and provides an assessment of the potential impacts of the Proposed Development on waste management services and infrastructure within the defined study area.

All waste materials generated during the Construction Phase and Operational Phase of the Proposed Development will be managed in accordance with the Construction Management Plan, the Operational Management Plan and the Construction Demolition Waste Management Plan.

A Preliminary Construction Environmental Management Plan (PCEMP) was prepared by Tobin Consulting Engineers Ltd. (July 2023) All waste generated during the Construction Phase will be segregated onsite to enable ease in re-use and recycling, wherever appropriate. In general, the priority of the Construction Phase waste management shall be to promote recycling, reuse and recovery of waste and diversion from landfill wherever possible. It is expected that all of the excavated material is to be reused on site (pending environmental soil testing).

A Construction Demolition and Operational Waste Management Plan (CDOWMP) has been prepared for the Proposed Development by Tobin Consulting Engineers Ltd. (July 2023). Provided the mitigation measures detailed in the CDOWMP (Tobin Consulting, July 2023) are implemented, compliance with national legislation, recycling and recovery is achieved, no significant residual impacts are anticipated during the Construction and Operational Phases of the Proposed Development.

The cumulative effects of Proposed Development on Material Assets (Waste) have been assessed taking other planned, existing, and permitted developments in the surrounding area into account. All planning permission that have been granted in the immediate vicinity of the Site and developed have been reviewed. The assessment concluded that the likely cumulative impact of the Proposed Development with other developments in the area during both the Construction and Operational Phases will be neutral and not significant on waste management facilities in the area in the long-term.

No difficulties have been encountered while compiling this Chapter.

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## 12 Material Assets: Traffic and Transportation

The full assessment of Material Assets: Traffic and Transport is contained within Chapter 12 of the EIAR. This NTS provides a summary of the issues and impacts relating to the material assets of traffic and transport in respect of the subject lands.

### 12.1 Consultation

Tobin Consulting Engineers contacted Westmeath County Council Roads Department in relation to the previous proposed development in June 2020. Westmeath County Council requested that analysis be carried out at the following junctions:

- Junction 1: R394/Midland Hospital (Irishtown Roundabout); and
- Junction 2: R394/Proposed Access Roundabout

In addition, a further discussion with Westmeath County Council took place in April 2023 in relation to Active travel scheme on Ashe Road. The active travel scheme comprises provision of the shared, and combined cycle facilities proposed throughout the development was developed through a collaborative approach with Westmeath County Council. Throughout this consultation the needs of all road users were considered to ensure a safe, enjoyable environment for cyclists, pedestrians, and motorists.

The outcomes of this exercise were incorporated into the Traffic and Transport Assessment and design drawings. A further pre-planning meeting between the design team and Westmeath County Council to discuss the updated development was taken in place on 21<sup>st</sup> March 2023. The resulting comments were taken on board and amendments to the design were incorporated where possible.

### 12.2 Potential Effects

The following section outlines the Traffic and Transportation Assessment undertaken in accordance with the TII Traffic and Transportation Assessment Guidelines - May 2014 publication (PE-PDV-02045). The predicted impact, the mitigation measure required, and the residual impacts are considered under the following headings:

- Do Nothing Scenario
- Construction Phase
- Operational Phase
- Cumulative Impacts

The proposed development will impact on the surrounding roads network during construction and operational stages. It is broadly accepted that operational stage traffic will exceed that of construction stage traffic and will be potentially less manageable in terms of avoiding peak hour traffic periods. Therefore, traffic models of the proposed development access junctions as well as the existing

Junctions 1 and 2 have been developed with operational phase traffic presenting a worst-case scenario.

### 12.2.1 Assessment Year

TII Traffic and Transportation Assessment Guidelines sets out the required assessment years and time periods to be assessed. In accordance with this guideline document, the following sections detail those proposed in this assessment.

### 12.2.2 Construction Phase

Construction traffic travelling to the proposed development site will use the N4 and R394. A Traffic Management Plan (which will be completed by the Contractor appointed to the project) for the construction stage will identify haulage routes and restrictions as appropriate in discussion with the Local Authority. A draft Construction Traffic Management Plan is included with the planning application which outlines the preliminary management plan and what will be expected of the Main Contractor's Management Plan at construction stage.

It is estimated a total of 20 HGV per day at busiest period on site, namely the groundworks element of the works during approximate 35 weeks. During non-peak times it is estimated 10 HGV deliveries per day. For a development of this size, it is estimated that 35 - 50 site operatives will be employed during construction works and near completion it is expected that personnel number on site increase to 75 - 150 per day.

The increase in traffic volumes, as a result of construction vehicles visiting the site, is not considered to be excessive and will be spread out over construction period over the three phases of the development. The development has also been designed to minimize cut and fill throughout the site, in keeping the proposed finish floor levels of the units and the proposed road levels as close to the existing ground levels as possible. As a result, the trip generation associated with the exporting and importing of cut and fill material to site is minimised. For further detail on the cut and fill, please refer to Chapter 5 Soils and Geology of this EIAR.

Due to the designated access point off the R394, allowing delivery vehicles to pull off the road into the site, there will be no significant disruption on the traffic flows on the R394 as a result of the construction of the development. It is recommended that all delivery drivers and haulage companies serving the proposed development are provided with instructions/directions on accessing the site from the R394 and the surrounding local road network. Overall, there will be a short-term imperceptible negative impact to local traffic during the construction phase.

### 12.2.3 Cumulative Effects

Traffic and Transport Assessment (TTA) shall consider all committed developments within the vicinity of the site. This includes sites which have previously been granted planning permission, but which are yet to become operational.

Committed developments granted in the immediate vicinity of the proposed development include PL Ref 19-6121. PL Ref 19-6121 is for the construction of 18 apartments units in 2 blocks (Block A&B).

Block A consists of 1 no. 1bedroom unit, 3no.3bedroom duplex apartments in 2 and 3 high building with private balconies and patios. Block B consists of 3 no.1-bedroom units and 6no. 2 bedrooms duplex apartments units in 3 storey high building with private balconies and patios. The proposed development will also consist of new site entrance, shared access road, footpaths, car parking spaces, boundary wall and fence, covered cycle track, recycling bin storage area, public and private open spaces, particle removal and trimming of existing hedgerows to accommodate proposed site entrance, landscaping and all associated site works and services at Ashe Road, Mullingar, Co. Westmeath.

The traffic volumes associated with the above development was reviewed to determine where the distribution of the traffic will overlap with the proposed project. The traffic volumes associated with the committed development was deemed negligible at the junctions assessed. As such, it has been assumed that any increase in traffic will be accounted for in the high sensitivity growth rates.

It is also noted the proposed development (Phases 1&2) assessed in this TTA will form part of a larger three-phase development. Phase 3 of the development (ref 22515) consists of 213 dwellings and a creche and was granted permitted with conditions by Westmeath County Council. This TTA has considered these applications as background traffic as both were granted.

## 12.3 Mitigation

### 12.3.1 Construction Phase Mitigation

The Construction Environmental Management Plan (CEMP) includes proposed mitigation measures to minimise the impact of constructed related traffic on the modelled roads network. The construction stage of the proposed development will be complete in three phases as described in CEMP and the project is scheduled to begin construction in 2024 with an estimated duration of 83 weeks. It is envisaged that working hours will be 08:00 am to 19:00 pm Monday to Friday (08:00 am to 14:00 pm for Saturday) for construction personnel through each phase of the development. Generally, construction workers will travel to site before the measured peak hour of 08:00 to 09:00, to be on site for a 08:00 start-time. It is envisaged that a very limited number of construction employees are likely to travel to the site during peak hours.

It is anticipated that heavy goods vehicles, HGV's, will be restricted to movements on the local road network during the off-peak periods. It is estimated that truck movements and general deliveries would arrive/leave at a steady rate during working hours. It is envisaged that during the busiest period onsite, namely the groundworks element of the works, an estimated 8 no. HGV's will deliver to the site daily for the duration of this work element. HGV deliveries are envisaged at other periods during the construction phase, but these are expected to be at a lower frequency. An estimated total of 610 HGV trips are envisaged throughout the course of the construction phase of the works.

A number of mitigation measures are proposed during the construction phase to minimise the impact, the measures are as follows:

- A detailed haulage plan will be put in place to ensure minimal impact on the surrounding road network. Spoil removal from site will be kept to a minimum with a detailed site survey completed to ascertain where spoil can be distributed on the site.

- All deliveries and removals will be subject to stringent site rules governing the loading / off-loading times, location of loading / off loading, covering of loads and cleaning of vehicles exiting the site, etc.
- Delivery loads to and from the site and management of large deliveries on site to occur outside of peak periods.
- No vehicle will be allowed to stop or park on the access road to the proposed development site.
- Ample parking will be provided within the site to cater for the staff and visitors during the construction phases of the proposed development.
- Construction traffic will be managed and scheduled to ensure no queueing occurs on either the internal road system or the main approach roads. The provision of an on-site vehicle staging area will facilitate waiting vehicles.
- Routine sweeping/cleaning of the road and footpaths in front of the site; and
- No uncontrolled runoff to the public road from dewatering/pumping carried out during construction activity.

There will be on-going monitoring of the impact of construction traffic on the wider roads network to ensure prompt action is taken in the event of an issue arising.

### 12.3.2 Operational Phase Mitigation

Mitigation measures proposed during the operational stage are as follows:

- Provision of “YIELD” road markings at the roundabout access in accordance the Traffic Signs Manual (TII, 2019).
- Suitable Lighting of all junctions with lighting columns being positioned at the back of the footways.
- The connection of the proposed development footpaths to the existing footpath network on the R394. This will allow connectivity to the existing infrastructure.
- The provision of bicycle stands and dedicated cycle routes through the development to encourage cycling.
- Charging points for electric vehicles are being provided.
- A Mobility Management Plan has been included as part of the Traffic and Transport Assessment, submitted as part of this application. This outlines the mobility strategy for the proposed development and includes measures for guiding the delivery and management of coordinated mobility management initiatives by the scheme promotor.

## 12.4 Residual Impact Assessment

As population grows throughout Ireland and in particular, in popular commuting hub areas like Mullingar, a continued increase in traffic volumes is not sustainable. The governments modal shift targets are outlined in the Smarter Travel: A Sustainable Transport Future. The key targets of Smarter Travel are to reduce work-related commuting by car to 45%, and increase other modes such as walking, cycling, public transport, and carpooling to 55%. As a result, an ever-increasing approach by designers and planners to providing sustainable commuting alternatives is required. The use of public

transport and promotion of walking and cycling will ultimately increase the overall quality of life for people living in these fast paced, busy towns and villages located within commuter belts.

The proposed development has integrated a number of measures in line with the relevant standards and guidelines, such as DMURS 2019 and the National Cycle Manual, which promotes the use of sustainable travel to and from the site. The Road Safety Audit carried out for the site allowed the design team to address any concerns initially flagged in the Road Safety Audit. A continued and collaborative approach with the road safety auditors meant that a desirable and safe site layout could be achieved without negatively impacting the overall quality of the development.

The use of the private car will still be maintained as a primary mode of transport for a number of residents in the development. Trip generations to and from the proposed development are 168 in the morning peak and 176 in the evening peak as noted above. The internal roads on the development to be constructed have been suitably designed in accordance with the DMURS manual.

Progressive and regular liaising with Westmeath County Council Roads Department in relation to the internal roads and the permitted link roads layouts contributed to the final road design for the development.

As noted previously, mitigation measures are to be implemented to promote and encourage more sustainable transport modes. The proximity of the Bus Stops will encourage pedestrians to utilise the higher frequency Public Transport options. Dedicated cycle routes and secure bicycle parking spaces are also provided throughout the development.

The mitigation measures outlined in Section 12.3 would minimise any residual impacts. As construction traffic would be temporary in nature, traffic volumes would return to their pre-construction condition, except for the expected increase in traffic associated with normal traffic growths and the changes in traffic pattern that naturally occur on road networks. The preparation of the Traffic Management Plan would minimise traffic impacts during the Construction Phase.

The residual impacts will relate to the operational phase traffic associated with the proposed development which will be low having an imperceptible effect on the existing road network.

## 12.5 Road Safety Audit

A road safety audit has been carried out by CST Group Chartered Consulting Engineers independently from the design team on the proposed development. The Audit identified a number of items which were reviewed by the Design Team and the design amended where necessary. The recommended measures and proposals were agreed and signed off by the Designers, Client, and Auditors. The final site layout provides a roads network throughout the development which incorporates measures that ultimately provide a high level of safety for both the pedestrian and the driver without comprising the overall quality of the development. Swept path analysis has also been carried out to ensure vehicles can manoeuvre safely within the site.

## 13 Material Assets: Services, Infrastructure and Utilities

The full assessment of Material Assets: Services, Infrastructure and Utilities is contained within Chapter 13 of the EIAR. This NTS provides a summary of the issues and impacts relating to the material assets of surface water drainage, foul water drainage, water supply and utilities in respect of the subject lands.

### 13.1 Surface Water Drainage

There is limited existing surface water control on the existing site. There is no piped surface water network and existing storm water controls are limited to the heads of land drains constructed as part of the Brosna Arterial Drainage Scheme under the 1945 Arterial Drainage Act. However, during site inspections, these drains were found to be dry and were presumably originally only precautionary in nature. It is evident that existing rainwater drainage from the site is by means of direct infiltration and percolation into the existing agricultural ground.

The proposed storm sewer collection system consists of a 100 mm diameter pipe collection network around each house in accordance with TGD part H discharging to 225mm diameter uPVC sewer pipes or larger under the estate streets. The surface water network layout and typical details are shown in the following drawings:

- Proposed Drainage Layout Sheet 1 of 2 - (10906-2503),
- Proposed Drainage Layout Sheet 2 of 2 – (10906-2504)
- Proposed Rising Main and Storm Culvert Connection – (10906-2505)
- Proposed SuDS Layout Sheet 1 of 2 – (10906-2508)
- Proposed SuDS Layout Sheet 2 of 2 – (10906-2509)
- Standard Manhole Details Sheet 1 of 2 – (10906-2519)
- Standard Manhole Details Sheet 2 of 2 – (10906-2520)
- Standard Pipe Bedding Details – (10906-2521)
- Typical Site Work Details – (10906-2523)
- Typical Plan & Sections of Storm Water Attenuation/Soakaway Unit – (10906-2524)

It is proposed to approach the management of surface water drainage for the development using the principles of Sustainable Urban Drainage Systems (SuDS). The overall strategy aims to provide an effective system to mitigate the adverse effects of urban surface water runoff on the environment by reducing rainfall runoff rates to equal greenfield runoff, reducing the overall volume leaving the site and reducing pollutant concentrations in the surface water. The proposed SUDS features in the development are modular AquaCell underground attenuation/soakaway units, Klargester petrol interceptors, hydro-brake flow controls, permeable pavement, tree pits, pathside bioswale & drainable kerbs.

The proposed surface water drainage networks will run to underground soakaway cells or attenuation tanks, from which the water will be contained until it naturally flows through the soil beneath the cells and into the water table below ground level. Overflow from the attenuation tanks general then flow through hydro-brake manholes, which control the discharge rate of the water, discharging ultimately onto a bio-swale before discharging to an existing box culvert along the R394.

Possible negative effects from this drainage proposal include flooding of the area. However, the design of the drainage system minimises this. The storm water drainage design has been undertaken using Causeway Drainage Design Flow v10.5.1 modelling software. The analysis considered the 100-year return period plus an additional 20% to account for the effects of climate change.

Another possible negative effect is the release of pollutants from the water in the system entering a natural watercourse. But this is eliminated by oil/petrol interceptors, which retains pollutants before the storm water is discharged.

## 13.2 Wastewater Drainage

The layout of the proposed wastewater drainage network for the development and its typical details are shown on the following drawings:

- Proposed Drainage Layout Sheet 1 of 2 - (10906-2503),
- Proposed Drainage Layout Sheet 2 of 2 – (10906-2504)
- Proposed Rising Main and Storm Culvert Connection – (10906-2505)
- Standard Manhole Details Sheet 1 of 2 – (10906-2519)
- Standard Manhole Details Sheet 2 of 2 – (10906-2520)
- Standard Pipe Bedding Details – (10906-2521)
- Typical Site Work Details – (10906-2523)

It is proposed that wastewater generated from circa. 99no. units of the proposed development will discharge via gravity to an existing 225mm Uisce Eireann foul sewer which runs within a small section of the site along the southern boundary. A new manhole will be constructed on the existing sewer at the point of connection.

The remaining units, due to the site topography will be pumped northwards, via a 110mm PE Rising Main, along the C-Link Road to an existing 525mm Uisce Eireann foul sewer. A pumping station is proposed in the north of the site to raise the wastewater generated from the circa. 82 units. The pump station has been granted planning as part of a separate application, submitted to Westmeath County Council, (planning reference: 22515). The pump station is to cater for a development on the opposite side of the C-Link Road to the one described in this report. The 82no. units from this development have been considered in the design for sizing the pump station.

A feasible connection of wastewater services for up to 200 houses has been confirmed by Uisce Eireann at the respective proposed connection locations. See Appendix E of the Civil Works Design Report and Appendix 13.6 this EIAR for Uisce Eireann correspondence.

The laying/construction of the foul network will be a standard trench excavation and kept as shallow as possible, adhering to Irish Waters Codes of Practice. All wastewater designs will be fully vetted by Irish Water prior to receiving an offer to connect.

Traffic will be affected during the construction phase when connecting the proposed wastewater network to the existing network.

These works will have some effect on due to increased construction traffic and the laying of services across roadways requiring temporary and partial closure of lanes during construction. Traffic movements associated with the proposed development are addressed within Chapter 12 – Traffic of this EIAR. This chapter specifically deals with traffic and the impact of the development on road infrastructure. A construction traffic management plan (CTMP) has been prepared by TOBIN to help reduce the impact of traffic during the works period. No long-term impacts are envisaged on the existing wastewater network from the construction stage.

### 13.3 Watermain Design

A 400mm AC watermain is located on the western side of the C-Link Road. This traverses around the roundabout to the southwest of the site and heads east along Ashe Road on the opposite side of the development for approximately 100m before terminating at a sluice valve. Additionally, for a 100mm PVC watermain is located along the southern boundary on the nearside of the development along Ashe Road.

The water supply required for the proposed development shall be via a 150mm spine watermain as per Irish Water requirements. A 100mm PE Watermain will breach off this spine main to service the smaller areas of the development. It is proposed to connect to the 400mm Asbestos watermain located within the C-Link Road, north-west of the proposed site entrance. In addition, a connection to the existing 100mm uPVC watermain in Ashe Rd is proposed as noted within the Confirmation of Feasibility received from Irish Water. This is proposed to improve the interconnectivity of the existing watermain networks in the area as per the following accompanying drawings:

- Proposed Watermain Layout Sheet 1 of 2 - (10906 - 2501),
- Proposed Watermain Layout Sheet 2 of 2 (10906 – 2502),

The watermain will be metered in accordance with Irish Water requirements at one location:

- Within the development at the northern entrance of the development, downstream of the 150mm  $\emptyset$  tie-in point.

There will be some disruption to the existing watermain whilst making the connection, but the works will be brief and any potential temporary shutdowns to water supply will be agreed with Irish Water and people that will be affected will be advised in advance of the short-term impacts that they may experience.

See Appendix 13.6 to this EIAR for the Irish Water confirmation of feasibility for the water pre-connection enquiry.

### 13.4 Electricity Supply

There are existing power lines running across the site.

It is proposed to underground the existing power lines that are currently overhead from the southern boundary to the ESB distribution facility to the west of the site.

When the structures, ducting and new cabling is in place and ready for connection there will need to be a short-scheduled outage of power supply to the local area as the overhead cables are shut down and the underground cables become live. This outage will be agreed with the ESB, local residents and businesses and they will be warned and the impact from the construction phase of the proposed development on the local electrical supply network is likely to be brief and imperceptible.

### **13.5 Telecoms / Communications**

Telecoms ducting and cables will be laid within the development site during the construction stage. Prior to the operational phase of the development this internal network will be connected to the local infrastructure of one or more of the telecoms providers in the area.

The potential impact from the construction phase of the proposed development on the local telecoms network is likely to be brief, neutral and imperceptible.

### **13.6 Natural Gas**

No Gas is proposed for the development and no works are envisaged to the local gas network.

### **13.7 Earthworks**

The development of the subject site will require the stripping of top and sub soils and the excavation or fill of ground to formation level. Estimates of the earthwork cut and fill volumes are described in Chapter 5 – Land, Soils and Geology of this EIAR and a prepared Preliminary Construction Demolition & Operational Waste Management Plan accompanying this application.

Construction activities and vehicle movements shall be in accordance with the Construction Environmental Management Plan, Preliminary Construction Demolition & Operational Waste Management Plan and the Construction Traffic Management Plan, all formulated by the appointed Main Contractor and overseen by their Construction and Demolition Waste Manager in order to minimise any impact on the existing environment and the surrounding area.

## **14 Biodiversity**

The Biodiversity Chapter details the Ecological Impact Assessment (EclA) of the Proposed Development, which assesses the potential effects of same on habitats and species; particularly those protected by National and International legislation or considered to be of particular nature conservation importance. This describes the ecology of the Site and surrounding area, with emphasis on habitats, plants and animals and will assess the potential effects of the Construction and Operational Phases of the Proposed Development on these ecological receptors.

A detailed desk study, in combination with a suite of field surveys was carried out regarding the Proposed Development. Field surveys included: habitat/flora (including invasive plants) surveys, bird surveys, mammal surveys, herptile scoping surveys and bat surveys. All surveys were undertaken at the appropriate time of year and no limitations were encountered in the preparation of this Chapter.

Lough Ennell and Lough Owel are designated as a Special Areas of Conservation (SAC), Special Protection Area (SPA), proposed Natural Heritage Area (pNHA) and Ramsar Sites and fall within the Zone of Influence (ZOI) of the Proposed Development. The Grand Canal pNHA was also deemed to fall within the ZOI of the Proposed Development. These designated sites are linked to the Proposed Development via hydrological and hydrogeological pathways. The potential impacts to the SAC and SPA are assessed in detail in the Appropriate Assessment (AA) Screening Report accompanying this application under a separate cover. The pNHA and Ramsar sites in Lough Ennell and Lough Owel are covered by proxy in the AA Screening Report as the potential impacts identified are analogous with those detailed for the SAC/SPA due to the overlapping boundaries and similarities in the important features for which the sites are designated. The Royal Canal pNHA is considered further as a Key Ecological Receptor (KER) in this Chapter and a suite of surface water and groundwater protection measures are detailed to ensure there is no potential for the Proposed Development to result in significant impacts to the Royal Canal pNHA.

The Site consists of a number of agricultural fields used for grazing cattle and is dominated by species poor improved agricultural grassland habitat with boundary treelines, hedgerows and areas of scrub. A small pocket of wet grassland habitat associated with a depression in the land lies at the southwest of the Site. Non-native snowberry (*Symphoricarpos alba*) was recorded on Site. Snowberry is a low impact non-native and does not represent a significant risk at the Site scale.

The habitats on Site are considered to be of local ecological importance to common passerine birds, providing nesting, foraging and sheltering habitat. No signs of protected species such as badger (*Meles meles*), otter (*Lutra lutra*), hedgehog (*Erinaceus europaeus*) or pygmy shrew (*Sorex minutus*) were recorded on Site, although the hedgerows, treelines and scrub habitats on Site likely support hedgehog and pygmy shrew. There are no watercourses or drainage ditches on Site to support fish or amphibian species. Due to the isolated nature of the wet grassland habitat on Site and the up-built nature of the adjacent lands, the Site does not provide significant habitat for amphibians.

The 2023 bat activity surveys of the Site recorded a total of three bat species, common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and Leisler's bat (*Nyctalus leisleri*). Bat activity was predominantly associated with the boundary treelines, hedgerows and areas of scrub. Bat activity was minimal along the C-Link Road and Ashe Road due to a high level of artificial lighting along the road network however Leisler's bat appeared to utilise the boundary fence for commuting along the road network.

The following were considered as KERs as part of the EclA of the Proposed Development:

- The Royal Canal pNHA.
- Hedgerows (WL1) and treelines (WL2).
- Small mammals (hedgehog and pygmy shrew).
- Bird and bat assemblages.

Potential impacts of the Proposed Development were predicted to range from neutral to significant at the local scale only and can be readily addressed with the mitigation measures proposed. Potential Construction Phase impacts will be via habitat loss or damage, increases in noise and dust emissions, direct mortality or disturbance of breeding birds and small mammals during vegetation removal,

runoff of sediment or other water borne pollutants into the local groundwater body and light pollution impacts to nocturnal species (e.g., bats). The proposed landscape design for the Site includes the retention of the treeline at the northeastern corner of the Site and additional planting is also proposed in this area. This area of the Site recorded the highest level of bat activity across the three 2023 survey nights, with common pipistrelle and soprano pipistrelle recorded foraging along this boundary. A potential impact during the Operational Phase of the Proposed Development was identified via light pollution impacts to nocturnal species.

The integrated design features and mitigation measures recommended in this Chapter to address the above potential impacts include wildlife friendly lighting measures, seasonal constraints on vegetation removal and abundant landscaping at the Site. The mitigation measures outlined ensure that there will be no significant impact on local fauna at the Site. The mitigation measures address the source of impacts (e.g., night-time light pollution, dust, noise, vegetation clearance).

Enhancement measures recommended for the Site include features such as bird and bat boxes which will be located at suitable locations around the Site and the adoption of a low-intervention hedgerow management plan for the Site. This will maintain the outer boundary vegetation in as wild a state as possible to maximise the biodiversity value provided by these features.

No significant cumulative impacts involving the Proposed Development and other developments were identified. Any potential cumulative effects are largely linked to loss of habitats to development. Provided all mitigation measures are implemented in full and remain effective throughout the lifetime of the Proposed Development, no significant residual negative impacts on the local ecology or on any designated sites are expected from the Proposed Development.

If the Proposed Development were not to go ahead, habitats at the Site would continue to naturally evolve. The treelines and hedgerows would continue to provide foraging, nesting and commuting habitat for birds, bats and small mammals, the grasslands would continue to offer resources to local pollinators and the scrub habitat would persist in providing habitat for local wildlife.

## 15 Cultural Heritage and Archaeology

### 15.1 Introduction

The Cultural Heritage and Archaeology chapter assesses the impacts of the proposed development on the known and potential cultural heritage resource, which includes archaeology, architectural heritage, folklore, historical associations and language.

The assessment was based on a programme of desktop research combined with a field survey which were undertaken to identify any features of archaeological, architectural or cultural heritage significance likely to be impacted by the proposed development. All of the fields within the boundary of the proposed development were subject to a programme of archaeological test trenching in 2020 (Dunne 2020, Licence ref. 20E0255) which was carried out as part of an Archaeological Impact Assessment prepared for a previous planning application within the proposed development site (Westmeath Co. Council (WCC) ref. 21/139). The only identified feature of archaeological potential

within the fields was a single pit feature of unknown date located in the southeast area. The Archaeological Impact Assessment Report recommended that this feature should be subject to a full archaeological excavation in advance of the construction phase. The Notification of Decision issued by WCC for the application included a condition (No. 10) stating that the developer should carry out the recommendations set out in the Archaeology Report submitted as part of the application. A copy of the full test trenching report is provided in Appendix 15.1.

## 15.2 Description of Existing Environment

There are no recorded archaeological sites within the proposed development site and there are no extant examples located within 500m of its boundary. The only recorded archaeological site located within the surrounding study area comprises the former site of a 19th century upright stone (WM019-089003-) which no longer survives and is of likely negligible cultural heritage value. The proposed development is also located c.670m outside the Zone of Notification around the historic core of Mullingar town. The proposed development site was previously subject to a programme of archaeological test trenching and the full excavation of a single pit feature of unknown date, which remains in situ within the site, was previously included as a condition in the County Westmeath grant of permission for an earlier application at this location (WCC ref. 21/139). This condition is in accordance with an observation/recommendation of the National Monuments Service, via the Development Applications Unit, during statutory consultations carried out as part of that planning application.

There are no Protected Structures, including associated curtilage features, or NIAH-listed buildings located within the proposed development site. There are a number of Protected Structures located within the surrounding study area. Barrack View (RPS 019-020), a 19th century farmhouse, is located c.30m to the southeast of the site. This house was formed assigned a 'Local' rating by the NIAH and is no longer listed in that inventory, which indicates that the NIAH have assessed the house to be of low cultural heritage value. No curtilage features associated within this house, such as a garden or outbuildings, are located within the boundary of the proposed development site. Columb Barracks is located c.400m to the southeast of the proposed development and contains a number of buildings listed as Protected Structures. No intervisibility between the barracks and proposed development was noted during the site inspection. In addition, the proposed development site is not located within, or in the close environs of, an Architectural Conservation Area.

No undesignated features of cultural heritage interest, such vernacular or industrial heritage structures, townland boundaries, demesne lands or historical associations, were identified within the proposed development site.

## 15.3 Predicted Impacts

### 15.3.1 Do Nothing Scenario

A 'Do Nothing Scenario' will see the continued preservation of recorded and potential cultural heritage features within the study area.

### 15.3.2 Construction Phase

A programme of archaeological test trenching was carried out within the proposed development site in 2020 and this revealed one pit feature of unknown date which has the potential to be archaeological in origin. Ground works during the construction phase will have the potential to result in a permanent, direct, negative effects on this pit feature and this will require mitigation. The construction phase will result in a temporary, indirect, not significant impact on the setting of a 19th century farmhouse known as Barrack View which is listed as a Protected Structure (RPS 019-020) and is located on the opposite side of Ashe Road from the proposed development. No other construction phase impacts are predicted.

### 15.3.3 Operational Phase

There are no extant recorded archaeological sites within the proposed development site or within 500m of its boundary. The proposed development will, therefore, have no predicted impacts on the setting of any recorded archaeological sites during the operational phase. Following the successful implementation of archaeological mitigation measures presented in Section 15.9, it is predicted that no impacts will arise in relation to the potential archaeological resource within the proposed development site during the operational phase. There are no designated architectural heritage structures located within the proposed development site, it is not located within an ACA, and it contains no undesignated structures of architectural heritage interest. The proposed development will result in a not significant, indirect impact on the setting of Barrack View farmhouse (RPS 019-020) during the operational phase.

### 15.3.4 Cumulative Impacts

Based on the review of the other developments within the wider environs of the subject site, the proposed development is not predicted to act in combination with them to result in any cumulative impacts on the cultural heritage resource of the area.

## 15.4 Mitigation Measures

The pit feature identified during the 2020 programme of test trenching within the proposed development site will be subject to a full archaeological excavation in advance of the construction phase works at its location. This mitigation measure will comply with a condition included in the previous grant of permission for a previous planning application within the proposed development site (WCC ref. 21/139) as well as the National Monuments Service's observations/recommendations in relation to that development. There are no structures of architectural heritage interest or other cultural heritage assets located within the proposed development site and no construction or operational phase mitigation measures for these elements of the cultural heritage resource are required.

## 15.5 Residual Impacts

The proposed development site does not contain any extant recorded archaeological sites or designated architectural heritage structures and no residual impacts on these elements of the cultural

heritage resource are predicted. The preservation by record a pit feature of archaeological potential identified during archaeological test trenching by a systematic archaeological excavation will result in a high magnitude of impact on this feature of unknown date which will be ameliorated by the creation of a full and detailed archaeological record, the results of which shall be publicly disseminated. This shall result in a potential slight/moderate range of significance of effect in the context of residual impacts on the unrecorded archaeological resource. The proposed development will result in a not significant, indirect residual impact on the setting of Barrack View farmhouse (RPS 019-020) during the operational phase.

## 16 Significant Impact of Interactions

The construction, operational and cumulative impacts of the proposed development have been assessed within each chapter of the EIAR. This chapter describes the significant interactions of impacts identified in the previous chapters.

All potential inter-relationships impacts between the various areas covered in the EIAR are listed and the key interactions and interrelationships are summarised. Mitigation measures outlined where required. With mitigation measures in place, no significant residual negative impacts are predicted.

A schedule of proposed mitigation measures and monitoring measures is presented in Chapter 15.

## 17 Summary of Mitigation Measures

Chapter 15 of the Environmental Impact Assessment provides a summary of the mitigation and remediation measures proposed for each discipline throughout the EIAR document.

Some disciplines have proposed monitoring following their assessment of impacts and implementation of proposed mitigation measures. Monitoring will take place after consent is granted in order to demonstrate that the project in practice conforms to the predictions made during the EIA process. Monitoring provides assurance that proposed systems are operating as intended. This allows adjustments of operations to be made to ensure continued compliance with consent conditions such as emission limit values, conditions of operation, performance criteria/ indicators and detection of unexpected mitigation failures.

## 18 Screening for Major Accidents

This chapter of the EIAR has been prepared by Saoirse Kavanagh, Executive Planning Consultant of McCutcheon Halley Planning Consultancy and provides a review of the characteristics of the proposed development and of the project location to consider potential accident scenarios. This summary prepared by Cora Savage of McCutcheon Halley Planning Consultants has taken into account the potential and predicted impacts of the proposed Masterplan with their relevant attributes and scales.

## 18.1 Description of Existing Environment

The description of the proposed development is presented in detail in Chapter 2 – Project Description. The subject site is surrounded by established residential areas and It is located in close proximity to Mullingar town.

It is proposed to construct a Residential Development with associated services, access roads and carparking at the proposed site. The site is currently greenfield and is situated off the C-Link Road to the north of Mullingar. The proposed construction is envisaged to consist of conventional foundations and pavement make up with some local excavations for services and plant.

### 18.1.1 Site Description

The site is free from structures on the Record of Protected Structures and is not located within an Architectural Conservation Area (ACA). There are no sites on the Record of Monuments and Places (RMP) within the development area. The site is also not within a Special Area of Conservation (SAC) or a Special Protection Area (SPA).

The site comprised of open grassland and scrub with some hedgerow borders.

### 18.1.2 Topography

The site gently slopes from east to west.

### 18.1.3 Flood Risk

There are no records of any flooding in this area of Mullingar in the OPW's floodinfo.ie database of maps and the development lies outside all flood zones shown in the Local Area Plan for the Mullingar Municipal District. A flood risk assessment was conducted by Tobin Consulting Engineers to confirm same.

### 18.1.4 Seismic Activity

In Ireland, seismic activity is recorded by the Irish National Seismic Network. As per the measures of seismic movements, Mullingar is not at risk nor in immediate vicinity of large seismic events/activities.

### 18.1.5 COMAH/SEVESO sites

The Seveso Directive (Directive 82/501/EEC, Directive 96/82/EC, Directive 2012/18/EU) was developed by the EU after a series of catastrophic accidents involving major industrial sites and dangerous substances. There are no SEVESO sites in close proximity to the proposed development.

The proposed development has been designed in accordance with the Safety, Health and Welfare at Work Act 2005 as amended.

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## **18.2 Predicted Impacts**

### **18.2.1 Do Nothing Scenario**

The site will remain as underutilized greenfield area.

### **18.2.2 Construction Phase**

No scenarios of concern have been identified during the construction phase.

### **18.2.3 Operational Phase**

The proposed development is not located in an area prone to flooding or an area prone to seismic events. As such, these accident scenarios are not of concern.

Therefore, the impact is considered to be long term, imperceptible and neutral.

### **18.2.4 Cumulative**

Cumulative impacts are considered imperceptible and neutral.

## **18.3 Mitigation Measures**

### **18.3.1 Construction Phase Mitigation**

No scenarios of concern have been identified during the construction phase.

### **18.3.2 Operational Phase Mitigation**

The proposed development is not located in an area prone to flooding or an area prone to seismic events.

### **18.3.3 Monitoring**

No monitoring is proposed.

### **18.3.4 Residual Impacts**

Cumulative impacts are considered imperceptible and neutral.

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