



Environmental Report

Residential Development
at
Kilcullen Road,
Bluebell,
Naas,
Co Kildare

on behalf of
Ardstone Homes Ltd

Declan Brassil
& Company Ltd
chartered planning consultants

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1. INTRODUCTION

This Report accompanies a planning application by Ardstone Homes Ltd. for permission for a residential development of 125 no. units at a site of approximately 3.76 ha, located to the south of Naas, within the townland of Bluebell, Co. Kildare.

This Environmental Report Document seeks to provide details of the proposed development, the site context and an assessment of the impact of the proposed development on the subject lands in terms of the potential environmental impacts and effects arising.

1.1 Screening for Environmental Impact Assessment

Screening is the term used to describe the process for determining whether a proposed development is likely to have a significant effect on the environment and if it requires an Environmental Impact Assessment (EIA) by reference to the type and scale of the proposed development and the significance or the environmental sensitivity of the receiving environment.

Annex I and Annex II of 2011/92/EU are incorporated into Schedule 5 of the Planning and Development Regulations 2001 (SI No. 600 2001). Schedule 5 (Part 2) sets out the categories of development and thresholds for activities that require EIA. In this regard, the proposed residential development of 122 units is significantly below the threshold for residential development as set out in Class 10 (b)(i) – *‘Construction of more than 500 dwelling units’*.

Class 10(b)(iv) provides for *‘urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up areas and 20 hectares elsewhere’*. The application site is a greenfield site of 3.76ha situated on the south side of Naas, approximately 1.4 km from the Town Centre. The site cannot be reasonably be defined as being within a business district as defined in the Regulations. It is significantly below the 20 ha and 10 ha thresholds that apply to sites outside of the business district.

As such, EIA is not mandatory for the proposed project.

1.2 Sub Threshold Development

Section 172(b)(i) and (ii) of the Planning and Development Act 2000, as amended, states that the competent authority can also require an EIA where a project is below the specified threshold due to the likelihood of significant effects on the environment. Article 103(3) of the Planning and Development Regulations, 2001 as amended states that in determining whether a proposed development would or would not be likely to have a significant effect on the environment, regard shall be given to the criteria set out in Schedule 7. In addition, Section 3.2.3 of the Draft EPA Guidelines (2017) states:

‘Where a project is of a specified type but does not meet, or exceed, the applicable threshold then the likelihood of the project having significant effects on the environment needs to be considered. Both the adverse and beneficial effects are considered. This is done by reference to the criteria specified in Annex III of the amended Directive’.

An EIAR Screening Report was initially submitted to Kildare County Council as part of the pre-planning consultation documentation for discussion. The EIAR Screening Report concluded that an Environmental Impact Assessment of the proposed development was not required.

The proposed development and amendments made on foot of pre-application consultation with Kildare County Council and An Bord Pleanála have been assessed against Schedule 7 of the Planning and Development Regulations, 2001, as amended, and the Annex III criteria of the amended directive (Directive 2014/52/EU) at Appendix A. This assessment concludes that an Environmental Impact Assessment of the proposed development is not required.

1.3 Purpose of Environmental Report

This document has been produced to provide environmental information that the competent authorities refer to, to enable an informed determination of whether or not consent should be granted for a proposed development. Notwithstanding the absence of any statutory guidelines over the scope and content of an Environmental Report, it is considered that the most comprehensive and appropriate manner in which to assess and present the likely environmental impacts associated with the proposed development.

This Environmental Report incorporates the assessments contained in the following reports accompanying this application:

- Planning and Statement of Consistency Report;
- Social Infrastructure Assessment Report;
- Statement on Housing Mix Report;
- Architectural & Urban Design Statement;
- Appropriate Assessment Stage 1 Screening Report;
- Traffic and Transport Assessment;
- Site Specific Flood Risk Assessment;
- Infrastructure Design Report;
- Preliminary Construction Management Plan;
- Archaeological Assessment Report;
- Arboricultural Assessment and Impact Reports;
- Landscape Architects Design Report
- Visual Impact Assessment Report.

These Reports should be read in conjunction with this Environmental Report.

1.4 Content of the Environmental Report

Experience in the delivery of similar projects has identified relevant and significant planning and environmental matters to be assessed as part of the planning process. This Environmental Report examines each aspect of the environment separate sections, referring to the existing environment, the proposed development, likely impacts and proposed mitigation measures. Where potential environmental effects are likely to occur as a result of the proposed development, the Environmental Report aims to identify the impact and the necessary measures to avoid or mitigate those impacts.

The preparation of this Environmental Report has been informed by the following:

- Environmental Impact Assessment (EIA) Directive 2011/92/EU, as amended by EIA Directive (2014/52/EU);
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018;
- European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349 of 1989), as amended;
- Sixth Schedule of the Planning and Development Regulations 2001 (SI No. 600 of 2001), as amended.
- Environmental Protection Agency's Guidelines On The Information To Be Contained In Environmental Impact Assessment Reports (2002)
- Advice Notes On Current Practice In The Preparation Of Environmental Impact Assessment Reports (2003);
- European Commission Impact Assessment Guidelines (2009),
- Department of Environment, Community and Local Government (DoECLG) Guidelines for Planning Authorities & An Bord Pleanála on carrying out Environmental Impact Assessment (2018).

The content of this Environmental Report has also had regard to the Revised Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Draft), August 2017; the Advice Notice for Preparing Environmental Impact Assessment Reports (Draft), September 2015, and the Consultation Paper on Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems. These documents are currently Consultation Drafts and it was considered appropriate that regard was had to them on the basis they take account of the revised EIA Directive (2014/52/EU).

1.5 Structure of the Environmental Report

The Environmental Report has been prepared in the 'Grouped Format' structure, which examines each aspect of the environment as a separate section referring to the existing environment, the proposed development, likely impacts, and mitigation measures. The Environmental Report has been systematically organised to provide the following information: This Report is structured as follows:

- Section 2 - location and context of the subject site;
- Section 3 – overview of the proposed development
- Section 4 – Environmental Assessment
- Section 5 – Conclusions

2. SITE LOCATION & CONTEXT

The site comprises of approximately 3.76 ha and are located the southern side of Naas, in the townland of Naas, Co. Kildare. This site is approximately 1.5 km to the south west of the centre of Naas and is connected from the R448 Kilcullen Road via an access road to the east that is currently under construction. The R448 Kilcullen Road runs north-south and connects the proposed development to the Naas town centre.

Naas is identified as a Large Growth Town in the Kildare County Development Plan. Large Growth Towns are to focus on high quality integration of development and consolidation of growth. On this basis, the housing unit allocation for Naas provides for 4,842 no. additional units over the period 2016-2023.

The site is roughly rectangular in shape and consists of part of 3 no. arable agricultural fields. It is noted that overhead power lines currently cross the subject site. Hedgerows and trees primarily define the northern and eastern boundary with the Esmondale and Broadfield View respectively. The site is bounded to the north and east by Broadfield View and to the south and west by agricultural lands. Kilashee View, the Pipers Hill residential development and educational campus are located on the opposite site of Kilcullen Road.

The landscape in the immediate vicinity of the site is defined by agricultural land to the south and west and by existing suburban type residential development of Broadfield View, Esmondale and Kilashee View to the north and east. Residential development in the vicinity of the site is primarily in the form of one and two-storey detached houses.

The majority of the site is zoned Objective C, *'to provide for new residential development'* in the Naas Town Development Plan, with dwellings permitted in principle under the zoning objective. A minor portion of the site of to the northwest is zoned Objective I, *'to retain and protect agricultural uses'* and will contain proposed associated and ancillary drainage infrastructure to serve the proposed residential development, including a pumping station and attenuation tank. The site is not located within a flood risk zone and is in excess of 300m from the nearest watercourse. The site does not contain any protected structures, monuments or sites and is not within any Architectural Conservation Areas or area of Archaeological Significance.

Figure 2.1 below illustrates the approximate location and immediate context of the site.

Figure 2.1 Site Location and Context



3. DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development comprises the provision of 125 no. residential dwellings, consisting of 12 no. one bed dwellings; 64 no. two bed dwellings; 24 no. three bed dwellings and 25 no. four bed dwellings. The proposed development provides for a range of dwelling types including terraced, semi-detached and detached two storey houses. In addition, the proposed development provides single storey, dormer style houses along the eastern boundary with Broadfield View and apartment units in a four storey building along the western boundary.

The following mix of unit types is proposed:

Type	Description	No. of Units	Beds	Area (sqm)	Mix (%)
A1	Maisonette	2	1	52	3.2%
A2	Maisonette	2	1	62	
B1	Detached Dormer	5	3	105.4	4.8%
B1A	Detached Dormer	1	3	110.5	
B2	Two storey, End of Terrace	26	2	86.2	35.2%
B3	Two Storey, Mid-Terrace	18	2	86.2	
C1	Two storey, Semi-Detached	16	3	112.2	14.4%
C2	Two Storey, Semi-Detached	2	3	114.2	
D1	Two Storey, Semi-Detached	16	4	132.4	17.6%
D2	Two Storey, Semi-Detached	1	4	134.2	
D3	Two Storey, Semi-Detached	5	4	143.6	
D4	Two Storey, Detached	3	4	143.6	2.4%
Apt	1 bed apartment unit	8	1	52	6.4%
Apt	2 bed (3 person) apartment unit	6	2	67	16%
Apt	2 bed apartment (4 person) unit	14	2	74-76	

The proposed development provides 5,288 sqm of public open space (approximately 15% of the subject site), primarily located at 3 no. areas throughout the site. A large open space area of 2,160 sqm is centrally located within the proposed development and provides a focal point for the scheme. An open space area of approximately 1,323sqm is located to the north of the central open space, adjacent to the proposed apartment block. The third area of primary open space is situated to the southeast of the site, adjacent to the main entrance of the development. This space has a cumulative area of 1,486sqm and has been designed to create an attractive entrance to the proposed development, integrating with the roadway and associated landscaping (under construction), permitted under ABP Reg. Ref. PL09-246859 (KCC Reg. Ref. 15/848) to the southeast. The open space to the south of the site incorporates the retention of existing trees and hedgerows, supplemented with high quality planting to create a green entry buffer to the scheme. Passive surveillance of the public open spaces is provided by surrounding residential units.

Vehicular and pedestrian/cycle access to the proposed development will be via the permitted and under construction access road from the R448 Kilcullen Road to the southeast of the site. The proposed development has been designed to incorporate future potential pedestrian and vehicular connections in the north-western and south-western corners of the site to adjoining agricultural lands to the west. It is noted that the proposed development has also provided for future pedestrian and cycle connectivity to Broadfield View to the northeast of the site, via an adjoining area of public open space in Broadfield View.

In addition, the proposed development provides a total 251 no. car parking spaces to serve the proposed dwellings, consisting of 190 spaces for each house, 38 spaces in the curtilage of the apartment block and 23 visitor spaces.

The proposed development also includes all associated and ancillary infrastructure and development works, including drainage infrastructure, a pumping station, internal roadways, landscaping, boundary works and lighting. No demolition works are required to facilitate the development.

3.1 Description of the Characteristics of the Proposed Development

In accordance with Section 2(a)(i) of S.I No 600 of 2001, a description of the main physical characteristics of the proposed development and the land use requirements during the construction and operation phases is provided below.

3.1.1 Main Characteristics of the Construction Phase

The main characteristics of the construction process and the nature of materials to be used is summarised below.

- The construction process includes the following activities:
 - Pre-construction earth moving / ground works and excavation works;
 - Erection of structures and buildings;
 - Construction of roads and site works,
 - Fit out of buildings; and
 - Landscaping works.
- Materials required include:
 - Construction materials;
 - Elevational finishes and materials;
 - Internal fit outs and finishes;
 - Paving /surfacing;
 - Piped Infrastructure;
 - Telecommunications connections;
 - Landscaping, and
 - Surface for car access.

A bill of quantities for the proposed development has not been prepared to date and as such it is not possible at this time to estimate the quantity of material required. Where feasible, excavated material will be reused as part of the site development works (e.g. use as non-structural fill material) in order to

minimise truck movements to and from the site, however, some unsuitable excavated soil may have to be removed to an approved landfill if encountered.

The sequence and method of construction of the development will be confirmed with the appointed Contractor prior to commencement on site. The Contractor will be required to prepare a detailed Construction Management Plan on foot of these proposals.

3.1.2 Main Characteristics of the Operational Phase

The impacts of the operational phase of the proposed development are addressed as appropriate in the relevant sections of the Environmental Report below.

As demonstrated in the following sections, the operation of the proposed development is not likely to give rise to any significant additional impacts on the environment.

4. ENVIRONMENTAL ASSESSMENT

4.1 Population and Human Health

According to the 2016 Census, Naas has a total population of 21,597 persons. The 2016 Census indicates that the population of Naas has increased by 4.3% between 2011 and 2016.

The 2016 Census results indicate that the age profile of the population of Naas is relatively young, with 28.9% of the population in the 0-19 age range, above the average of the State, the Greater Dublin Area (GDA) and Dublin. Kildare has a slightly younger population profile (31% under 19 years of age) than Naas, however, Naas has higher population in the 20-39 working age range.

Population in the 0-4 age range has decreased between 2011 and 2016 across the State, the GDA, Dublin, Kildare and Naas. It is noted that Kildare had the largest decrease in the 0-4 age range, followed by the State, Naas, the GDA and Dublin. In addition, 16.4% of the population of Naas are in the primary school age range (05-14), the same as the state but below the GDA (17.6%) and Kildare (22.1%).

Land use in the vicinity of the proposed development is predominantly residential and agricultural in nature. The area immediately surrounding the subject site is characterised by one-storey and two-storey, suburban style residential developments. The nearest residential development is Broadfield View which bounds the site to the north.

Pipers Hill is an emerging neighbourhood district of approximately 180 ha and is currently comprised of a large educational campus and a residential development located to the southeast of the site, on the opposite side of the R448 Kilcullen Road. The Pipers Hill educational campus is substantially completed and currently consists of the Pipers Hill College, Gaelscoil Nás Na Ríogh (incl. Tus Maith Childcare Facility), St David's National School and the Educational and Training Boards of Ireland (ETBI). A residential element of the Pipers Hill development is currently under construction. The remaining lands further to the south are reserved for commercial and community elements of the neighbourhood district, including an 18 hole championship golf course; driving range and clubhouse; a 100 bedroom nursing home; 4 no. enterprise office units and additional dwellings.

The construction of 125 no units will provide critical housing infrastructure for Naas, the wider hinterland and the Greater Dublin Area, and will support the emerging residential neighbourhood district at Pipers Hill. The additional population will contribute positively to the community by reinforcing and strengthening the services and function of the emerging neighbourhood centre at Pipers Hill and the wider Nass area by increasing housing supply in line with national housing policy. The proposed development benefits from significant investment in transportation and education infrastructure in the immediate vicinity and will contribute to the consolidation of the emerging urban area, and assist in creating a more active, vibrant neighbourhood with the critical mass to support a wide range of facilities and services. The proposed development encompasses high quality open spaces and provides pedestrian connectivity to the emerging neighbourhood. The proposed development will have a significant positive long-term impact on the community, providing a sustainable infill residential development proximate and accessible by sustainable modes to the broad range of commercial, employment, community, educational and recreational facilities available in both Naas and Pipers Hill.

The proposed development is unlikely to result in any significant adverse impacts on human health and safety considerations once completed and operational. Environmental impacts of the proposed development (operational phase) and their relationship to human health is dealt with under the relevant noise and vibration, air and climate and traffic sections.

At construction stage, there is likely to be some slight, temporary negative impacts on local residents. These impacts are likely to result from construction traffic movements to and from the site together with other possible health and safety impacts, such as nuisances associated with construction access requirements, pollution spillages, migration of surface contaminants, dust, noise and littering. Secondary impacts may result from increased construction traffic hauling building materials to and from the proposed development site which are likely to affect humans in a variety of potential locations distant from the proposed development site, such as residents near aggregate sources and landfill sites.

The construction stage may also result in short term moderate positive impacts from the creation of employment opportunities and local spending.

Proposed mitigation measures are centred on the potential for short-term negative impacts on the existing community during the construction phase. These impacts will be minimised by the implementation of a Construction Management Plan, a Construction Traffic Management Plan and the mitigation measures described in the other sections. It is noted that the Preliminary Construction Management Plan, prepared by DBFL Consulting Engineers has been provided with the application documentation.

4.2 Soil and Geology

The development site consists of portions of 3 no. arable agricultural fields which border existing housing developments to the north and east. The topographical survey of the site shows that generally the site falls from south-east to north-west. Existing topography levels range from 123.06m AOD in the south-eastern extent of the site to 116.62m on the north-western boundary.

A ground investigation was undertaken by Ground Investigations Ireland and revealed that the strata encountered consisted mainly of Topsoil to a maximum depth of 0.10m BGL on Cohesive deposits of brown sandy gravelly CLAY with occasional cobbles and boulders on Granular deposits of gravelly silty clayey SAND with occasional cobbles and rare boulders.

The Geological Survey of Ireland (GSI) bedrock geology map shows that the Quinagh Formation comprising lenticular, very thin beds of dark mudrock, interbedded with pale coarse siltstone or fine sandstone underlie the site.

Site development works will include stripping the topsoil layer and excavation of subsoil layers to allow road construction, foundation excavation and services installation. Where feasible, excavated material will be reused as part of the site development works (e.g. use as fill material).

Potential impacts of the proposed development during the construction phase include the following:

- Stripping of the of the existing topsoil layer and excavation of the subsoil layers resulting in exposure of the underlying layers to the effects of weather, construction traffic and the generation of sediment-laden runoff.
- Accidental spills and leaks (e.g. storage of oils and fuels on site, use of cement and concrete during construction works).

The Preliminary Construction Management Plan, prepared by DBFL Consulting Engineers provides the following measures to be implemented to mitigate against such risks:

- The contractor shall obtain approval of their proposed erosion and sediment control measures from Kildare County Council's Environment Section prior to commencing works on site.
- Stripping of topsoil will be carried out in a controlled and carefully managed way and coordinated with the proposed staging for the development.
- At any given time, the extent of topsoil strip (and consequent exposure of subsoil) will be limited to the immediate vicinity of active work areas
- Topsoil stockpiles will be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains
- Topsoil stockpiles will also be located so as not to necessitate double handling.
- The duration that subsoil layers are exposed to the effects of weather will be minimized
- Disturbed subsoil layers will be stabilized as soon as practicable (e.g. ackfill of service trenches, construction of road capping layers, construction of building foundations and completion of landscaping)
- Stockpiles of excavated subsoil material will be protected for the duration of the works, stockpiles of subsoil material will be located separately from topsoil stockpiles

Prior to the commencement of development a Construction Management Plan (CMP) will be prepared by the Contractor in order to mitigate against potential impacts that may arise during the construction phase, incorporating the mitigation measures outlined in the Preliminary Construction Management Plan submitted. Implementation of the measures outlined in the CMP will ensure that the potential impacts of the proposed development on soils and the geological environment do not occur during the construction phase and that any residual impacts will be short term. The primary residual impact may be the removal of material unsuitable for reuse as fill material. This impact is unavoidable given the nature of the proposed development.

4.3 Water, Drainage, Hydrology and Hydrogeology

The nearest EPA designated watercourses are the Broadfield river approximately 500m to the east of the site and the Upper Bluebell/Naas Canal Supply stream approximately 380m to the west. Both flow from south to north, join the main River Liffey c.4km to the northeast of the site, and are separated from the site by intervening roadways, residential development and agricultural land respectively. The site is within the Eastern River Basin District, which identifies the site as being in the Lower Liffey 2 Surface Water Body (SWB) catchment area and the Liffey Water Management Unit (WMU). The overall status of this waterbody is 'Moderate'.

The site lies within the Naas Sand and Gravel Urban Ground Water Body (GWB). The groundwater body chemical and quantitative status is 'Good'. The gravel aquifer beneath the site is classified as a Regionally Important Gravel Aquifer (Rg) and the bedrock aquifer beneath the gravel aquifer is described as a Poor Aquifer (Pl) which is generally unproductive except for local zones.

The Appropriate Assessment Stage 1 Screening Report, prepared by O'Callaghan Moran & Associates states that the proposed development site is not located within or adjacent to any areas classified or protected under legislation. The following SAC's and SPA's are identified as being located within 15km from the subject site:

- Mouds Bog SAC (Site Code: 002331) – 8.0kms to the Northwest
- Red Bog SAC (Site Code: 00397) – 8.0kms to the East
- Poulaphouca Reservoir (Site Code: 004063) – 8.5kms to the Southeast

The AA Screening Report concludes that the development of site infrastructure will be undertaken in accordance with best practice guidance and that the proposed development does not present a risk of significant effects on the Qualifying Interests and Conservation Objectives of Mouds Bog SAC, Red Bog SAC or Poulaphouca Reservoir SPA.

A Site Specific Flood Risk Assessment (SSFRA), Infrastructure Design Report and Preliminary Construction Management Plan have been prepared by DBFL and provided with this application. The OPW CFRAM flood extent maps indicate that the subject site is within Flood Zone C and is not affected by fluvial flood events. ICPSS coastal flood extent maps indicate that the site is located far above and outside the extent of predicted tidal flooding. The potential for pluvial flooding has been mitigated through the design of the proposed drainage system in accordance with the GSDS recommendations and incorporating SUDS features.

Potential impacts of the proposed development during the construction phase include the following:

- Surface water runoff containing increased silt levels or pollutants such as concrete runoff or oils and fuels.

The Preliminary Construction Management Plan, prepared by DBFL Consulting Engineers provides the following measures to be implemented to mitigate against such risks:

- Measures will be implemented to capture and treat sediment laden surface water runoff (e.g. sediment retention ponds, surface water inlet protection, fencing and signage around specific exclusion zones and earth bunding adjacent to open drainage ditches).

- Surface water runoff from areas stripped of topsoil and surface water collected in excavations will be directed to on-site settlement ponds where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.
- On-site settlement ponds are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.
- Surface water discharge points during the construction phase are to be agreed with Kildare County Council's Environment Section prior to commencing works on site.
- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site
- Pumped concrete will be monitored to ensure there is no accidental discharge
- Mixer washings are not to be discharged into surface water drains
- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds, debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility

Prior to the commencement of development a Construction Management Plan (CMP) will be prepared by the Contractor in order to mitigate against potential impacts that may arise during the construction phase, incorporating the mitigation measures outlined in the Preliminary Construction Management Plan submitted. Implementation of the measures outlined in the CMP will ensure that the potential impacts of the proposed development on surface water and the hydrogeological environment do not occur during the construction phase.

Potential impacts of the proposed development during the operational phase include the following:

- Increased impermeable surface area will reduce local ground water recharge and potentially increase surface water runoff (if not attenuated to greenfield runoff rate).
- Accidental hydrocarbon leaks and subsequent discharge into piped surface water drainage network (e.g. along roads and in driveway areas).

The proposed surface water drainage system will collect run-off generated from the proposed residential development and has been designed in accordance with the Greater Dublin Code of Practice for Drainage Works and the Greater Dublin Strategic Drainage Study (GDSDS). The surface water outfall pipe is to be routed across adjacent lands to discharge to the Upper Bluebell Stream, approximately 380m to the west of the site, with a wayleave agreement to be put in place. The proposed drainage incorporates below ground attenuation tanks, SUDS elements and the provision of a flow control device to limit the run off to greenfield rates. The Infrastructure Design Report, prepared by DBFL concludes that the SUDS techniques incorporated into the proposed surface water drainage system will naturally reduce pollutants and improve water quality. It is considered that there are no predicted impacts on the water and hydrogeological environment arising from the operational phase.

The proposed foul water network has been designed to discharge by gravity to a proposed pumping station located to the west of the site, on the eastern side of the Rathasker Road. The rising main from the pump station will be directed through the site, along the permitted and under construction access road to discharge

to the existing Irish Water sewer in the Kilcullen Road (R448). A Pre Connection Enquiry Form has been issued to Irish Water, with their response included appendix F of the DBFL Infrastructure Design Report.

With regard to water supply, a single connection will be made to the existing public watermain in Kilcullen Road, to the east of the site to service the development. Exact details are to be agreed with Irish Water prior to construction. Individual houses will have their own connections to distribution water mains via service connections and meter/boundary boxes, with the main layout and details being in accordance with Irish Water's Code of Practice and Standard Details for water infrastructure.

4.4 Noise and Vibration

The existing noise and vibration environment is typical of an urban area, primarily characterized by passing traffic along the surrounding road network.

During the construction phase of the project, there is the potential for some minor impact due to noise emissions from site activities, depending on the proximity of works to the nearest sensitive properties. Some activities during the construction phase will have the potential to generate ground vibrations, however, no demolition works are required for the proposed development.

The Preliminary Construction Management Plan, prepared by DBFL Consulting Engineers states that Noise Limits and Vibration Limits to be applied for the duration of construction works are as set out in the following documents:

- National Roads Authority (NRA) Guidelines for Treatment of Noise and Vibration in National Roads Schemes
- BS 5228-1:2009+A1:2014 (Code of Practice for Noise Control on Construction and Open Sites).
- BS 5228-2:2009+A1:2014 (Code of Practice for Vibration Control on Construction and Open Sites)
- BS 7385: 1993 (Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration).

The Preliminary Construction Management Plan provides the following measures to be implemented to mitigate against potential noise and vibration impacts:

- During the works the contractor shall comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration.
- Limiting the hours during which site activities that are likely to create high levels of noise and vibration are permitted
- Erection of a barrier along site boundary (e.g. Standard 2.4m high construction hoarding) to remove direct line of sight between noise source and receiver when construction works are being carried out in proximity to noise sensitive receivers
- Establishing channels of communication between the contractor, local authority and residents

- Appointing a site representative responsible for matters relating to noise
- A noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels
- Selection of plant with low inherent potential for generation of noise
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints and implementation of noise reduction measures such as acoustic enclosures
- Avoid unnecessary revving of engines and switch off plant when idle
- All vehicles and mechanical plant used for the purpose of the Works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order. In addition, all diesel engine powered plant shall be fitted with effective air intake silencers.
- All ancillary pneumatic percussive tools shall be fitted with mufflers or silences of the type recommended by the manufacturers, and where commercially available, dampened tools and accessories shall be used.

Prior to the commencement of development a Construction Management Plan (CMP) will be prepared by the Contractor in order to mitigate against potential impacts that may arise during the construction phase, incorporating the mitigation measures and limit values outlined in the Preliminary Construction Management Plan submitted. The temporary nature of noise impacts associated with construction activity are not expected to be significant and can be appropriately controlled through planning conditions and the Construction Management Plan, details of which will be agreed with the Planning Authority.

During the operational phase, the outward noise impact to the surrounding environment will be limited to any additional traffic on surrounding roads. It is considered that the limited increase in traffic movements and will not have a significant adverse impact on the existing urban environment.

It is considered that the operational phase of the proposed development will not generate any additional observable vibration emissions on the receiving environment.

4.5 Air, Dust and Climatic Factors

The proposed development is not expected to cause any likely significant impact on ambient air quality. However, there may be a minor localised increase in dust levels and degradation of air quality during certain parts of the construction process associated with excavation work and construction traffic.

These increases will be short-term and will remain insignificant due to appropriate management and mitigation measures to be employed on site through the implementation of appropriate Construction Management Plan prepared by the contractor, details of which will be agreed with the Planning Authority prior to commencement on site. The Preliminary Construction Management Plan, prepared by DBFL Consulting Engineers provides the following dust suppression practices to be implemented during the construction phase:

- The Contractor shall prepare a dust minimisation plan which shall be communicated to all site staff

- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic
- Any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions
- Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly (on any un-surfaced site road, this will be 20 kph and on hard surfaced roads as site management dictates)
- Vehicles delivering material with dust potential (soil, aggregates, imported fill etc.) will be enclosed or covered with tarpaulin at all times to restrict the escape of dust
- Public roads outside the site will be inspected on a daily basis for cleanliness and cleaned as necessary
- Debris, sediment, grit etc. captured by road sweeping vehicles is to be disposed off-site at a licensed facility
- Vehicles exiting the site shall make use of a wheel wash facility where appropriate prior to entering onto public roads
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods
- During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.
- Monitoring of dust deposition levels (via the Bergerhoff method) shall take place at a number of locations at the site boundary of the proposed development to ensure that dust nuisance is not occurring at nearby sensitive receptors. This monitoring aims to ensure that the dust mitigation measures remain effective.

The only predicted air quality impacts associated with operation of the development are emissions to atmosphere from heating sources and traffic associated with the development. The change in traffic movements will have no quantifiable impact on air quality. There are no adverse impacts on ambient air quality predicted as a result of the Operation Phase of the proposed development.

It is considered that there will be no negative impact on the climate that would be likely to have a significant effect on the environment.

4.6 Biodiversity

The development site consists of portions of 3 no. arable agricultural fields separated by 2 no. hedgerows containing trees. Hedgerows and trees primarily define the northern and eastern boundaries of the site with the adjoining Broadfield View housing estate. It is noted that the Tree Survey, prepared by CMK and submitted with the application identified individual trees and shelterbelt planting. The trees consist of a mixture of deciduous and evergreen species of varying quality.

The development will result in the loss of the majority of the agricultural grassland habitat. Some of the hedgerows and treelines present on the boundaries of the site will be removed during construction.

It is intended that trees along the northern and eastern boundary are retained in the proposed development. In addition, a stand of trees of moderate value in the southwestern corner of the site have been retained and incorporated into the public open space. Hedgerows, trees and other features to be retained on-site will be protected from damage during construction. The retained hedgerows and trees will be supplemented by planting with native species. There will also be other areas of public space within the development planted with native woody species to compensate for the loss of hedgerows and trees during clearance of the site. Please refer to the Landscaping Masterplan and Landscape Architects Design Report, prepared by Mitchell + Associates and submitted with the application.

The loss of hedgerows and treelines within the site will result in the displacement of bird species using these habitats to the surrounding area during the construction stage. It is recommended that clearance of vegetation such as field boundaries and trees be carried out outside the breeding bird season from 1st March to 31st August inclusive.

The proposed landscaping of the site, incorporating existing hedgerows and mature trees as well as additional planting of native species will provide suitable new habitat for the majority of the commonly occurring bird species associated with the habitats being lost. Commonly occurring bird species will return to the site once landscaping has been completed and suitable habitat becomes available. The overall effect of the habitat loss on birds will be temporary at site level.

The construction phase of the development has the potential to generate pollutants such as silt which if discharged to ground or surface waters could indirectly affect watercourses. The nearest watercourses are the Broadfield river approximately 500m to the east of the site and the Upper Bluebell/Naas Canal Supply stream approximately 380m to the west. These watercourses are separated from the site by intervening roadways, residential development and agricultural land.

The Appropriate Assessment Stage 1 Screening Report, prepared by O'Callaghan Moran & Associates concludes that the development of site infrastructure will be undertaken in accordance with best practice guidance and that the proposed development does not present a risk of significant effects on the Qualifying Interests and Conservation Objectives of Mouds Bog SAC, Red Bog SAC or Poulaphouca Reservoir SPA. In addition, the Infrastructure Design Report, prepared by DBFL concludes that the SUDS techniques incorporated into the proposed surface water drainage system will naturally reduce pollutants and improve water quality.

There is no specific mitigation required for the operational phase of the development. Mitigation measures for the construction phase of the development will be employed on site through the implementation of an appropriate Construction Management Plan. Maintenance of the public spaces including the trees and hedgerows incorporated into the development design will be carried out on an ongoing basis as part of the overall management and maintenance of the development. Management will include the monitoring the health and success of the vegetation particularly the replacement planting and retained hedgerows and mature trees. Furthermore, the Preliminary Construction Management Plan provides the following measure to mitigate risk regarding the proliferation of invasive species during the construction stage:

- Ensure that invasive species (e.g. Japanese Knotweed) are treated appropriately (consult specialist invasive species contractor for suitable methods dependent upon the species) and avoid spreading these species during any works/activities.

4.7 Landscape and Visual Impact

A Landscape and Visual Impact Assessment (LVIA) has been prepared by Mitchell + Associates and is submitted with the planning application documentation. The LVIA summarises the impact of the proposed development on the landscape character and visual amenity of the current site and on the contiguous area and the site environs. It includes an outline of the methodology utilised to assess the impacts and descriptions of the receiving environment (baseline) and of the potential impacts of the development. Mitigation measures provided to ameliorate or offset impacts are considered and the resultant predicted (residual) impacts are outlined. The LVIA should be read with reference to the photomontages, which are contained in a separate A3 report prepared by 3D Design Bureau.

The landscape in the immediate vicinity of the site is defined by agricultural land to the south and west and by existing suburban type residential development of Broadfield View to the north and east. Residential development in the vicinity of the site is primarily in the form of one and two-storey semi-detached and detached houses. The site consists of portions of 3 no. arable fields separated by hedgerows, with hedgerows and trees defining the northern and eastern boundary with the Broadfield View residential estate. The LVIA notes that the visual penetration into the site from the main public access routes is rather limited due largely to the presence of existing intervening groups of trees and hedgerows, limiting potential visual impacts to those residing more closely to the site.

Potential visual impacts during the construction phase are related to temporary works, site activity, and vehicular movement within and around the subject site. Vehicular movement may increase in the immediate area, and temporary vertical elements such as scaffolding, site fencing, gates, plant and machinery etc., will be required and put in place. Residents of the existing housing estate to the north and east of the site will be impacted negatively to a slight extent by the construction of the proposed development. The visual impact of the proposed development during construction will vary from moderate and neutral to moderate and negative, depending on the stage of construction, and the intensity of site activity. All construction impacts are unavoidable and temporary in duration.

Overall, the development shall result in the change in character and appearance of the site from arable agricultural land to a residential area. The proposed development is located on lands zoned for residential development in the Naas Development Plan, directly adjacent to existing residential developments and in an area characterised by the emergence of a neighbourhood district at Pipers Hill. The existing site is not accessible to the public and does not include any amenity resource for the local populace. The proposed development will provide open space amenities for the residents. The scheme design makes allowance for possible future linkage into and through the scheme as appropriate, for both vehicles and pedestrians, and includes for the potential future provision of a direct pedestrian connection at the site's north-east corner into the Broadfield View housing estate. The consolidation of the neighbourhood district and development of suitably zoned land will reduce development pressure on the wider landscape and the risk of negative impacts arising from more dispersed forms of development.

The scale, height and design of the proposed dwellings has had due regard to the existing residential developments to the north and east. The majority of dwellings are two-storeys in height. A 4-storey apartment

block is located to the north west, at the lowest level of the site to minimise potential visual impact. Dwellings along the northern and eastern boundaries of the site consist of dormer and two story dwellings that have been orientated and located to mitigate against any potential residential amenity impacts on adjoining properties.

The LVIA concludes that the restricted height of the proposed development, coupled with the surrounding topography, the screening effect of other built developments in the vicinity, and the existing hedgerows edging the site and beyond results in a development that is not particularly visible to the surrounding area. The visual impact of the development from selected viewpoints are generally either imperceptible or slight and neutral. It is noted that View 5 of the photomontage has been assessed as being moderate and negative and is a glimpsed view through a gap in an existing hedgerow along the lightly trafficked Rathasker Road.

Furthermore, the proposed development seeks to retain most of the existing hedgerows and mature trees fringing the site, which will assist in the successful integration of the proposed residential units into the landscape. Additional planting of native species will reinforce the retained trees and the character and appearance of the development, enhancing the effective in screening the proposed housing units. The proposed landscaping and trees shall also enhance the biodiversity value of the site. Please refer to the Landscape Masterplan and the Landscape Architect Design Statement, prepared by Mitchell's + Associates.

Monitoring of effective tree and hedgerow protection measures and the successful establishment of the proposed new planting will ensure continued health and vigour of the existing vegetation on the site and will assist in the sensitive assimilation of the proposed development.

4.8 Traffic and Transport

The site is currently greenfield in nature, with access to the R448 Kilcullen Road from the site via the permitted and under construction access road (KCC Reg. Ref. 15/848 and ABP Reg. Ref. PL 09.246859) to the southeast. The development proposal comprises of the construction of 125 no. residential units and associated infrastructure. A total of 251 no. car parking spaces are proposed to serve the proposed dwellings and visitors.

The primary vehicular and pedestrian/cycle access to the proposed development will be via the permitted and under construction access from the R448 Kilcullen Road to the southeast of the site. The Kilcullen Road is subject to a speed limit of 50 kph and benefits from the provision of street lighting, public footpaths, cycle tracks and formal pedestrian crossing facilities. Accordingly, the site will be highly accessible to both pedestrian and cyclists.

JJ Kavanagh operates the 139 service connecting Piper's Hill with Blanchardstown, Naas, Sallins, Clane, Maynooth, Leixlip and Ongar. This service is highly accessible with the closest interchange opportunities located within 65m of the site access currently under construction. Several other services run from Naas town centre serving a variety of locations.

The closest train station to the subject site is the Sallins and Naas train station located approximately 5.6km north of the subject site, with several high frequency peak period services operating daily to Dublin, Kildare, Galway, Waterford and Westport. The train station contains car parking and sheltered bicycle parking facilities as well as bicycle lockers.

A Traffic & Transport Assessment Report (TTA) has been prepared by DBFL Consulting Engineers in respect of the proposed development and has been submitted with this application. The purpose of this TTA is to

quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of transport impact generated as a result of the proposed residential development.

Traffic Surveys were undertaken by DBFL in May 2018 to establish up to date characteristics of the local road network traffic. Vehicle turning/weekday traffic counts were undertaken over 2 no. 3 hour periods from 7:30-10:30 am and 15:00-19:00 pm on the 24th May 2018 at the Piper's Hill/Kilcullen Road Junction, located south of the subject site.

The TTA has carried out a range of assessments for an opening year of 2020 and a Future Horizons Years of 2025 and 2035. The junction analysis revealed that the junction access to the site, currently under construction and operating as a priority controlled arrangement, will have significant reserve capacity in the years assessed.

Construction traffic would consist of private construction staff vehicles along with HGV's involved in site development works and materials delivery. Construction traffic generated during development works tends to be off peak and distributed throughout the day. Overall, the impact of the construction period will be temporary in nature and less significant than the operational stage. The TTA recommends the following mitigation measures be employed to ameliorate the potential impact of construction traffic:

- Sufficient parking will be sought to be provided on site to accommodate construction generated vehicle movements.
- An appropriate routing strategy for HGV's can also be implemented for the duration of the works if found to be necessary.

The TTA concludes that the subject development will generate minimal impacts across the local road network. The impact of the proposed development at off-site junctions has been found to be generally sub threshold. It is concluded that there are no significant traffic or transportation related reasons that should prevent the granting of planning permission for the proposed development.

4.9 Architecture, Archaeology and Cultural Heritage

An Archaeological Assessment, prepared by IAC was provided with the request for pre-planning consultation with An Bord Pleanála. The first Archaeological Assessment for the site involved a detailed study of the archaeological and historical background of the development site and the surrounding area. This included information from the Record of Monuments and Places of Kildare, the topographical files in the National Museum and all available cartographic and documentary sources for the area, along with a field inspection to identify any previously unrecorded features of archaeological or historical interest.

The Assessment noted that the site does not contain any recorded monuments and no potential archaeological features were recorded in historical maps or aerial photographs of the site. No features or structures of obvious archaeological significance were identified within the site during the field inspection. Archaeological investigations and stray finds from the wider landscape have produced evidence of human settlement and activity in the region. The assessment concluded that ground disturbances associated with the development may have an impact on previously unrecorded archaeological feature or deposits that survive beneath the current ground level, with no surface expression. The report recommended a programme of geophysical survey and targeted archaeological testing be carried out within the site and that provision be made for the resolution of any archaeological features or deposits that may be identified, if that is deemed the most appropriate manner to proceed with.

Further to the recommendations of the IAC report, a Geophysical Survey was not carried out on site due to the presence of a standing crop. However, test trenching was undertaken on the subject site under licence from the Department of Culture, Heritage and the Gaeltacht (Licence No. 18E0485) and in consultation with the National Museum of Ireland. A revised Archaeological Assessment report, prepared by Archer Heritage and containing the results of the test trenching is enclosed with the planning application documentation and has been submitted to the Department of Culture, Heritage and the Gaeltacht. A total of 29 trenches were excavated across the site under archaeological supervision and no archaeological features were recorded during the course of the assessment. Due to the scale of the site and the constraints regarding geophysical testing, the report concludes that there is a low-medium potential for the survival of archaeological remains. The report recommends that any future development works be monitored by a suitably qualified archaeologist under licence and in consultation with the National Museum of Ireland.

The site does not contain any protected structures or features of architectural significance and is not within any Architectural Conservation Areas or area of Archaeological Significance. The nearest protected structures and the Naas Architectural Conservation Area are located approximately 1.5km to the north of the site within the Town Centre. Therefore, no direct impact on the architectural heritage will arise as a result of the proposed development.

Therefore, no direct impact on the architectural heritage will arise as a result of the proposed development.

5. Conclusion

The proposed residential development represents the development of residential zoned land that is benefit of recent investment in roads infrastructure on the southern side of Naas, adjoining existing residential developments and proximate to the emerging residential neighbourhood district at Pipers Hill. The development of zoned land and the consolidation of the emerging residential neighbourhood district at Pipers Hill will reduce development pressure on the wider landscape and the risk of negative impacts arising from more dispersed forms of development. The subject site currently consists of portions of 3 no. agricultural fields and associated hedgerows.

Ultimately, all of the effects of a development on the environment impinge upon human beings, directly and indirectly, positively and negatively. Direct effects include such matters as air and water quality, noise and landscape quality. Indirect effects pertain to such matters as biodiversity, services and road traffic. The assessments undertaken as part of this Environmental Report has revealed that the proposal will not result in any significant adverse effects on the environment. Mitigation measures have been proposed to avoid, remedy or reduce identified impacts, particularly in relation to the construction phase of the development.

APPENDIX A

ASSESSMENT OF PROPOSED DEVELOPMENT FOR SIGNIFICANT LIKELY EFFECTS

Schedule 7 of the Planning and Development Regulations 2001

The details of the proposed development are assessed against the Schedule 7 of the Planning and Development Regulations 2001, as amended, in Tables 1, 2 and 3 below:

Table 1.0 Characteristics of the Proposed Development

Criteria	Assessment
The size of the proposed development	The proposed development is sub-threshold for an EIA, consisting of 125 residential dwellings and associated infrastructure directly adjacent to existing residential areas of Naas, with a site area of approx. 3.76ha.
The culmination of other proposed development	<p>The proposed development is bounded to the north and east by established residential development. There are no zoned and undeveloped lands contiguous to the site and as such there are no pipeline developments likely to occur within the lifetime of the construction period of the development that would be likely to give rise to cumulative impacts.</p> <p>It is noted that lands to the southeast of the site are currently under construction, providing for the delivery of Phase 2 of the residential development at Pipers Hill. In addition, the access road from the R448 Kilcullen Road is currently under construction.</p>
The nature of any associated demolition works	The proposed development does not include the demolition of any structures on site.
The use of natural resources, in particular land, soil, water and biodiversity.	<p>The proposed development does not include the extraction of materials or groundwater from local sources. Minimal excavation will be required to facilitate the proposed development and the majority of extracted soil will be utilised in the landscaping of public open space.</p> <p>The construction phase of the proposed development will use natural resources including aggregate, cement, wood and water, sourced off site. These are secondary impacts associated with off-site activities, such as quarrying, which have the subject of separate consenting procedures, which consider the impacts arising at those locations.</p> <p>The land is in agricultural use, located on the edge of the established urban area. Hedgerows bound the site to the north and east, and an additional hedgerow separates the fields that comprise the site. With the</p>

	<p>exception of the hedgerows and trees, the site is likely to be of low biodiversity value. Appropriate measures will be taken to retain hedgerows and protect ecology where appropriate.</p> <p>No adverse significant impacts are expected to occur on the site or in the vicinity of the site through the use of natural resources.</p>
<p>The production of waste</p>	<p>Any waste produced as part of the proposed development during the construction phase will be stored and disposed in a sustainable manner and in accordance with all relevant environmental guidance and policy documents.</p> <p>No potential significant impacts are envisaged on the site or in the vicinity of the site as a result of the production of any waste associated with the proposed development.</p>
<p>Pollution and nuisances</p>	<p>Potential impacts of the proposed development relating to pollution and nuisances include air, water and soil pollution and noise.</p> <p>Pollution impacts could potentially occur through the creation of dust and spillage of materials from the construction phase, and emissions from additional traffic and the heating of buildings during operation phase. The traffic emissions could also potentially have an indirect impact on climate (in terms of climate change).</p> <p>The proposed development is not expected to cause any likely significant impact on ambient air quality. Dust levels are likely to increase in localised areas during construction but these increases will be short-term and will remain insignificant due to appropriate management and mitigation measures to be employed on site through the implementation of appropriate Construction Management Plans.</p> <p>The existing noise environment is typical of an urban area, characterized by passing traffic along the surrounding road network.</p> <p>Noise impacts may occur due to construction activities on a temporary basis, and through operation activities, such as changes in traffic levels. The temporary nature of noise impacts associated with construction activity are</p>

	<p>not expected to be significant and can be appropriately controlled through planning conditions and Construction Management Plans. Similarly, increased traffic movements during the operational phase are not expected to have a significant adverse impact.</p> <p>Contamination and pollution to water bodies, which in turn could also affect aquatic habitats and biodiversity are potential impacts of the proposed development associated with ground and construction works. The implementation of construction management and mitigation measures will ensure that the impacts are not significant. The proposed development has also been subjected to Appropriate Assessment Screening.</p> <p>In addition, the potential impact of spillage of potentially polluting materials during construction will be minimised and mitigated by appropriate management measures to be incorporated on site during construction.</p> <p>Subject to the implementation of an appropriate Construction Management Plans, and conditions attached to any grant of planning permission, it is envisaged that any likely environmental impacts would be appropriately avoided and mitigated.</p>
<p>The risk of accidents, having regard to substances or technologies used.</p> <p>(Annex III - The risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge.)</p>	<p>The proposed development is a typical residential development, utilising established building materials and technologies typical of the nature and scale of such residential development. No potential significant impacts are envisaged as a result of the materials or technologies used.</p> <p>The risk of accidents/major disasters is similar for other residential developments of this scale and nature. It is noted that the subject site is not located within flood zone A or B and is in excess of 300m from the nearest watercourse, separated by existing agricultural fields, associated hedgerow boundaries and roads.</p>
<p>Annex III - The risks to human health (for example due to water contamination or air pollution)</p>	<p>Potential impacts of the proposed development which may be relevant to human health relate to factors previously detailed, such as noise, water and air pollution.</p> <p>Pollution impacts could potentially occur through the creation of dust and spillage of materials from the</p>

	<p>construction phase, and emissions from additional traffic and the heating of buildings during operation phase.</p> <p>The proposed development is not expected to cause any likely significant impact on ambient air quality. Dust levels are likely to increase in localised areas during construction but these increases will be short-term and will remain insignificant due to appropriate management and mitigation measures to be employed on site through the implementation of appropriate Construction Management Plans.</p> <p>The existing noise environment is typical of an urban area, characterized by passing traffic along the surrounding road network.</p> <p>Noise impacts may occur due to construction activities on a temporary basis, and through operation activities, such as changes in traffic levels. The temporary nature of noise impacts associated with construction activity are not expected to be significant and can be appropriately controlled through planning conditions and Construction and Environment Management Plans. Similarly, increased traffic movements during the operational phase are not expected to have a significant adverse impact.</p> <p>Contamination and pollution to water bodies, which in turn could also affect aquatic habitats and biodiversity are potential impacts of the proposed development associated with ground and construction works. The implementation of construction management and mitigation measures will ensure that the impacts are not significant. The proposed development has been subjected to Appropriate Assessment Screening.</p> <p>In addition, the potential impact of spillage of potentially polluting materials during construction will be minimised and mitigated by appropriate management measures to be incorporated on site during construction.</p> <p>Subject to the implementation of an appropriate Construction Management Plans, and conditions attached to any grant of planning permission, it is envisaged that any likely environmental impacts would be appropriately avoided and mitigated.</p>
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Table 2.0: Location of the Proposed Development

Criteria	Assessment
<p>The existing and approved land use</p>	<p>The site roughly rectangular in shape and consists of undeveloped greenfield agricultural land, comprising 3 no. fields separated by a mature tree lined hedgerow. Mature tree lined hedgerows also define the northern and eastern boundary of the site.</p> <p>The majority of the site is zoned Objective C7 <i>'to provide for new residential development'</i> in the Naas Town Development Plan 2011-2017, with dwellings permitted in principle under the zoning objective. A minor portion of the site of to the northwest is zoned Objective I, <i>'to retain and protect agricultural uses'</i> and contains associated and ancillary undergrounded drainage infrastructure to serve the proposed residential development, including a pumping station and attenuation tank.</p> <p>The construction phase of the proposed development will result in the gradual transformation of the receiving environment or landscape from open, greenfield agricultural lands to an urban residential environment. The lands of the proposed development would be permanently lost for agricultural purposes.</p> <p>The proposed development is a plan-led development, which has been subjected to Strategic Environmental Assessment. The proposed development is consistent with the statutory planning framework for the site and will result in positive economic, employment and social effects on Naas and the emerging Pipers Hill district.</p> <p>Urban consolidation would also contribute towards meeting strategic population targets for the town and establishing a necessary and sustainable critical mass of population to support the urban core and the emerging district at Pipers Hill.</p> <p>As such, no potential significant adverse impacts are envisaged.</p>
<p>The relative abundance, quality and regenerative capacity of natural (including soil, land, water and biodiversity)</p>	<p>The site consists of primarily of agricultural land – improved grassland habitat, trees and hedgerows typical of the agricultural lands in the vicinity.</p>

resources in the area.

The proposed development is within an area designated for residential development under the Naas Town Development Plan and includes the provision of high quality areas of public open space and native planting.

There will be potential negative impacts on flora, fauna and ecology resulting from the loss of grassland and possibly hedgerow habitat but this impact is localised to the site only and will not devalue the heritage value of the wider area. The plant and animal species that occur are likely to be widespread and common throughout lands located immediately to the west and south of the site associated with agricultural lands.

The proposed development has been subjected to AA Screening.

There is potential for short-term impacts through the implementation of site works through the removal of natural features and habitat on site. This would affect the landscape and ecology value of the site in transforming the open and rural character of the site to an urban environment.

The retention of natural features where possible and appropriate will be beneficial from a landscaping and biodiversity perspective. The proposed development will also introduce a new landscape character to the subject lands in the form of landscaped open spaces.

The main potential impacts on soils and geology would result from the construction through the stripping of topsoil together with the excavation of subsoil layers that is required to facilitate overall development works, in particular the construction of foundations, roads, foul and surface water sewers and infrastructure. Such impacts would be temporary in nature.

The proposed development has been designed to comply with the recommendations of the Greater Dublin Sustainable Drainage Study, including the provision of Sustainable Urban Drainage Systems and is therefore unlikely to have any residual impacts in terms of the impact on surface water drainage.

It is considered that the proposed development would not have any significant impact on the underlying

	<p>bedrock, geology or hydrogeology of the site, either during the construction or operational phases of development.</p>
<p>The absorption capacity of the natural environment, paying particular attention to:</p> <p>Wetlands, riparian areas, river mouths,</p> <p>Costal zones and the marine environment,</p> <p>Mountain and forest areas,</p> <p>Nature reserves and parks,</p> <p>Areas classified or protected under legislation</p> <p>Areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded</p> <p>(Annex III – Areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure),</p> <p>Densely populated areas,</p> <p>Landscapes of historical, cultural or archaeological significance.</p>	<p>The proposed development site is not adjacent to any wetlands, riparian areas, river mouths, costal zones (marine environment), mountains, forested areas or nature parks/reserves.</p> <p>The proposed development has been subjected to an Appropriate Assessment Screening. The submitted screening report concludes that the proposed development site is not located within or adjacent to any areas classified or protected under legislation. The proposed development does not present a risk of significant effects on the Qualifying Interests and Conservation Objectives of Mouds Bog SAC, Red Bog SAC or Poulaphouca Reservoir SPA (within 15km of the subject site).</p> <p>The risk of accidents/major disasters is similar for other residential developments of this scale and nature. It is noted that the subject site is not located within flood zone A or B and is in excess of 300m from the nearest watercourse, separated by existing agricultural fields, associated hedgerow boundaries and roads.</p> <p>The site does not contain any protected structures, monuments or sites and is not within any Architectural Conservation Areas or area of Archaeological Significance. The nearest protected structures and the Naas Architectural Conservation Area are located approximately 1.5km to the north of the site within the Town Centre.</p> <p>The groundworks could have a potential impact on unknown sources of archaeological remains. It is not envisaged that the proposed development poses a significant adverse risk in this regard, subject to appropriate analysis and monitoring of the site by a suitably qualified archaeologist. An Archaeological Assessment has been provided with this request for consultation.</p> <p>It is considered that the receiving environment has sufficient capacity to absorb the proposed development and no significant likely effects are envisaged.</p>

Table 3.0: Type and Characteristics of Potential Impacts

Criteria	Assessment
The magnitude and spatial extent of the impact (geographical area and size of the affected population)	Potential environmental impacts during the construction and operational phase of the proposed residential development will be localised to the site and immediate surroundings. It is expected that the proposed development will not have any environmental impact beyond Naas and its environs.
The nature of the impact	The potential likely and significant impacts arising from the development will be typically those associated with a small to medium scale residential development in a Large Growth Town 1 in the Hinterland of the GDA, designated for growth. The nature of the impacts are expected to be of a magnitude that would not be significant, adverse or permanent.
The transfrontier/transboundary nature of the impact	The proposed development will not give rise to any impacts that are transfrontier or transboundary in nature.
The magnitude (intensity) and complexity of the impact	The potential impacts are not considered to be complex in nature or of a magnitude/intensity/scale to be of significance.
The probability of the impact	Having regard to the nature and extent of the impacts identified in Tables 8.2 and 8.3, no significant adverse impacts with a high probability of occurring have been identified.
The expected onset, duration, frequency and reversibility of the impact	Having regard to the nature and extent of the impacts identified in Tables 8.2 and 8.3, no significant adverse impacts with a high frequency of occurrence have been identified. Impacts on agricultural land use are of permanent duration and are irreversible. However, given the plan-led nature of the proposed development and the quality and quantum of agricultural land in the wider area, it is not considered that this impact would be significant.

In conclusion, having regard to the criteria specified in Schedule 7 of the Planning and Development Regulations, 2001; the context and character of the site and the receiving environment; the nature, extent, form and character of the proposed development; this Screening Assessment concludes that an Environmental Impact Assessment of the proposed development is not required.