



ENVIRONMENTAL IMPACT ASSESSMENT (SCREENING) REPORT

In Connection with

Proposed Housing Development

At

Massey Town,

Macroom,

Co. Cork

Applicant: Tuath Housing on behalf of Cork County Council

December 2022

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CONTENTS:

1.0 INTRODUCTION..... 3

2.0 SITE LOCATION, DESCRIPTION OF DEVELOPMENT & TOPGRAPHY..... 3

2.1 Site location & Description 3

2.2 Site Characteristics & Drainage 4

2.3 Soil Type, Quaternary and Solid Geology 5

2.4 Development Description 7

 2.4.1 *Associated Works*..... 7

 2.4.2 *Site Constraints* 7

2.5 Construction Details 8

 2.5.1 *Residential Units & Communal Dwelling* 8

 2.5.2 *Access Roads and Parking Areas*..... 8

 2.5.3 *Services and Utilities* 9

3.0 EIA SCREENING PROCESS..... 12

3.1 Screening Methodology..... 12

3.2 Sub-threshold Development (Discretionary) EIA Screening 13

4.0 CHARACTERISTICS OF PROPOSED DEVELOPMENT 15

4.1 Size and Scale of the Project 15

4.2 Cumulation with Other Projects..... 15

 4.2.1 *Adjoining Residential Development*..... 16

 4.2.2 *New Section of dual Carriageway Road including By-Pass of Macroom Town* 16

4.3 Use of Natural Resources..... 17

4.4 Production of Waste..... 17

4.5 Pollution and Nuisances 17

4.6 Risk of major accidents and/or disasters..... 17

4.7 Characteristics Overview 18

5.0 LOCATION OF PROPOSED DEVELOPMENT..... 18

5.1 Existing Land Use..... 18

5.2 Relative Abundance, Availability, Quality & Regenerative Capacity of Natural Resources..... 19

5.3 Absorption capacity of the natural environment..... 19

 5.3.1 *Wetlands*..... 19

 5.3.2 *Coastal Zones* 19

 5.3.3 *Mountains and Forest Areas* 19

 5.3.4 *Nature Reserves and Parks* 20

 5.3.5 *Areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC*..... 20

 5.3.6 *Areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded* 21

 5.3.7 *Densely Populated Areas* 21

 5.3.8 *Landscapes of historical, cultural or archaeological significance* 21

5.4 Environmental Sensitivity Findings 22

6.0 CHARACTERISTICS OF POTENTIAL IMPACTS..... 22

6.1 Human Beings 22

6.2 Flora & Fauna 22

6.3 Soils & Geology 22

6.4 Surface Water & Ground Water 23

6.5 Air & Climate..... 23

6.6	Noise & Vibration	23
6.7	Landscape	23
6.8	Traffic	24
6.9	Material Assets	24
6.10	ultural Heritage	24
6.11	Environmental Impacts Appraisal	24
7.0	CONCLUSIONS.....	25
8.0	REFERENCES.....	26

1.0 INTRODUCTION

Geoenvironmental Ltd Consultants has been instructed by EML Architects to complete an Environmental Impact Assessment (EIA) Screening Report to accompany a planning Application by Tuath Housing to develop 18 No. dwelling units plus a 5-bed communal Acquired Brain Injury dwelling on behalf of Tuath Housing at Massey Town, Macroom, Co. Cork.

This EIA Screening exercise was undertaken to determine if a completed Environmental Impact Assessment is required to be completed in connection with the proposed development works. The requirements are set out in the mandatory and discretionary provisions of the Planning and Development Act, 2000 (as amended) (the Act) and Schedule 5 of the Planning and Development Regulations, 2001 as amended. Certain projects, listed in Schedule 5 of the regulations, due to a likelihood of having the potential for significant environmental effects, require mandatory EIA. Others, also listed in the Schedule 5 of the regulations, contain threshold levels and for projects that fall below these thresholds. In this scenario it is at the discretion of the competent authority to decide if an EIA (and the associated EIAR) is required.

Whether a ‘sub threshold’ development should be subject to EIA is determined by the likelihood that the development would result in significant environmental effects. Significant effects may arise due to the nature of the development, its scale or extent and its location in relation to the characteristics of the receiving area, particularly sensitive environments.

This report documents the methodology employed to complete the screening exercise, having regard to relevant legislation and guidance documents. It also sets out a clear rationale for each decision made in the process.

The application will also be accompanied by an “Article 6(3) Appropriate Assessment (AA) Screening Report”, prepared by Roger Goodwillie (Consultant Ecologist). Summary findings from the AA Screening Report are set out in Sections 6 and 7.

2.0 SITE LOCATION, DESCRIPTION OF DEVELOPMENT & TOPGRAPHY

2.1 *Site location & Description*

The proposed development site is located in an established residential area, in the existing Meadow Lands/ Oakridge estate, accessed from Massey Town Road, via the N22 in Macroom, Co. Cork. The site is located approximately 700 metres from Macroom Town Square.

The site is 0.776 hectares and is bound to the north-west by mature hedgerow containing timber fence with farmland beyond. The site is bound to the north by a Concrete post and panel boundary wall with retaining elements with a relatively new (single storey housing development beyond the fence. The houses are located approximately 3.3m from the northern boundary of the site at its closest location.

The site is bound to the north east by a low level stone wall and block work boundary wall. There is an established single storey creche beyond the wall. The site is bound to the east by a blockwork boundary wall with existing single storey dwellings beyond. The site is bound to the south east and south by heras fencing with existing estate footpath and road beyond. The site is bound to the west and south west by heras fencing with temporary construction access road to a current

residential construction site. A Map illustrating the site location and relevant boundaries is set out in Figure 1.0.

Figure 1.0: Site Location Map



2.2 Site Characteristics & Drainage

The site is an irregular shaped greenfield site . The site slopes mainly in a north-west to south-east direction. There is currently a large spoil heap deposited close to the north west boundary. There are 3-Phase overhead power lines to the west of the site, running from north to south. It is planned to re-route and underground these cables through the existing gap between hedgerow and new housing to the north, and provide a way-leave for same, all to facilitate the proposed development. An existing land drain (indicated in black in the image below), is crossing the site from north to south, and it is planned to pipe this land drain and run it in parallel with the proposed undergrounded power cables. The mature hedgerow located at the north west boundary will remain as part of the proposed development.

Existing ground levels vary across the site from 82.0m (AOD Malin) closer to the Nth-West boundary) to 76.0m (AOD Malin) at the south-eastern boundary at the palisade Fence line and existing access to the Meadow Lands estate and entrance to new residential development currently under construction. A minor watercourse flows in a west to east direction at the back boundary and then proceeds to flow in a southerly direction bisecting the site. The watercourse is currently diverted into a road gully located at the roadside.

Figure 2.0: Picture indicating Watercourse entering Road Gully at Roadside

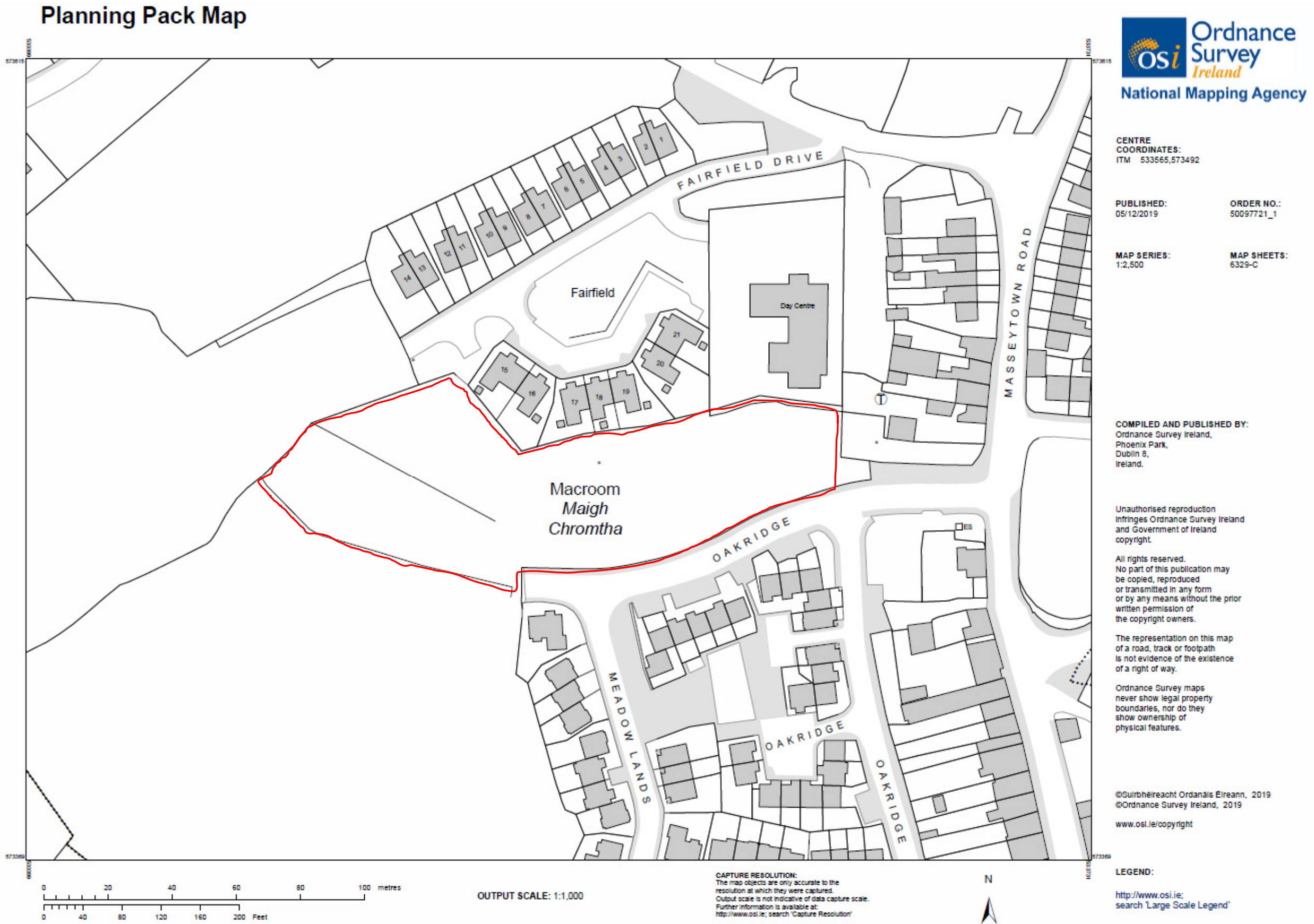


2.3 Soil Type, Quaternary and Solid Geology

The site is underlain by Acid Brown Earths, Brown Podzolics. This soil type is a deep well drained mineral mainly acidic and derived from mainly non-calcareous parent materials. There is an area to the south-west of the site delineated as a rock out-crop or sub-outcrop. The subsoil type underling the site is delineated as till derived from Devonian sandstones. The solid bedrock underlain the site is classified as Devonian Old Red Sandstone. The specific formation is the Caha Mountain Formation and is comprised of purple & green sandstone & siltstone.

A rock outcrop) has been recorded close to the surface in the south west of the site, and a karst geological feature potentially a cavern, in the centre of the site. It is proposed to break out the rock outcrop where necessary and provide access to the proposed western units in this area. It is proposed to bridge over the karst geological feature, below the central homezone, by means of underground reinforced concrete beams.

Figure 1.0: 1:2500 OS Map with site boundary indicated in red



2.4 Development Description

The proposed scheme comprises of a combination of single and two-storey units. It is proposed to provide a total of 18 No. dwelling units on the site plus a 5-bed communal Acquired Brain Injury Ireland dwelling. All units are to be designed in accordance with Ministerial Guidance “Quality Housing for Sustainable Communities 2007”, at a minimum. All single storey units are to be suitable for use by the elderly and/or people with disabilities. The proposed single-storey units and the ABII building avoids any over-looking concerns to the north, while maintaining accessibility for the users.

The Unit Breakdown is as follows:

- 4 * No. 1 bed, 2 person single storey units.
- 4 * No. 2 bed, 4 person single storey units.
- 6 * No. 2 bed, 4 person two storey units.
- 4 * No. 1 bed, 2 person own door apartments
- 1 * No. ABII, 5-bed communal dwelling

2.4.1 Associated Works

Two meter wide footpaths are proposed to both sides of all new roadways. Where possible, footpaths are proposed beyond the parking, separated from the dwellings by private 2m wide buffer zone. All footpaths and roads are to slope at a maximum of 1:21 gradient allowing for accessibility across the site. To achieve this gently sloped gradient on the existing sloped levels of the site, an amount of site cut is proposed to the northern and western parts of the site with retaining elements to northern boundaries and rear gardens. The units will comply with the following:

- All units will have a small 2m deep buffer zone to the front.
- All rear gardens will be in accordance with the minimum requirements of Cork County Council “Making Places: a design guide for residential estate development, 2011”.
- Two * car parking spaces are provided per 2 bed and 1.5 spaces are provided per one bed.
- The terraces of dwellings are to be stepped to accommodate a 1:21 gently sloped access and to reduce the amount of cut and retaining elements required on the site. Terraces are also proposed to maximise density of the site and reduce construction costs
- Where possible, access to rear gardens via external garden gate has been provided with bin storage to the rear. In mid-terrace units, secure bin storage is proposed to the front of the units within the proposed private 2m wide buffer zones
- All units are to be level access at front and rear with linear drains proposed
- Units will be modern in design, with slate roofs, painted render facades, and coloured insulated panels forming part of the window design. Where the gable of units overlook a Public Open space, coloured metal clad “pop-out” feature windows are proposed.

2.4.2 Site Constraints

The site contains a number of challenging constraints and requirements such as the steeply sloping site, rock outcrops, existing and proposed rights of way and wayleaves for roads and services.

2.5 Construction Details

The principal construction elements of the development will be the following:

- Residential Units
- Roads
- Services and Utilities such as foul, storm water & water supply
- Structures

2.5.1 Residential Units & Communal Dwelling

The planned residential units will primarily be from concrete block construction, plastered with a painted finish. The foundations will comprise of standard strip foundations. The roofs of the units will comprise of pre-fabricated timber trusses and felt and finished with fire cement slate roof on 50mm x 35mm treated timber battens on water resistant breather membrane. The ground level concrete floor of each the planned buildings will be laid on a maximum depth of 0.9m compacted granular material. The higher floor levels will be in the form of suspended concrete structural slab between rising walls.

Boundary walls are to be 900mm long and 2350mm high and be constructed from 300mm block work. Two meter high, concrete post and concrete panel walls to be constructed in rear gardens of terrace. The existing hedgerows at north western boundaries will remain but will be cut back as necessary. All scrub and hedgerow within site boundary will be removed and new trees and shrubs to be planted on site.

Standard build techniques are expected for all superstructure elements of the buildings comprising of masonry twin leaf external walls and concrete ground floor internal walls with timber structure first floors and timber partitions to first floors. Standard prefabricated roof trusses will be used throughout. The development.

2.5.2 Access Roads and Parking Areas

Access to the proposed development will be via the existing access road to the existing Oaklands and Meadow lands residential development. This access road will be extended to provide entry to the western portion of the proposed development.

The width of the existing road will be maintained at c.7m. The proposed roads will have consistent width of 6.1m with 2.0m wide footpaths to at least one side. The proposed roads layout has been reviewed in terms of controlling speeds through the provision of horizontal and vertical deflection mechanism. A posted speed limit 30km/h is proposed on entry to the scheme. The design incorporated two areas of 'Homezone' for the purpose of play street areas which are designed primarily for the benefit of pedestrians, cyclists, children and residents and where the dominance of the car is reduced.

2.5.3 Services and Utilities

Foul Network System

The proposed foul sewer network has been design in accordance with the DoEHLG Recommendations and with BS 8005: Part 1, 1987 'Guide to New Sewerage Construction'. Foul sewers are sized for a peak flow of 6 DWF assuming a discharge of 180 Litres per day per person and 2.7 persons per unit , equating to 0.25 l/s (1 DWF), 1.5 l/s (6 DWF). Calculations for the proposed foul sewer network have been completed by PHM Consulting Engineers

A minimum size of 225m pipe PVC SN8 is to be used for all foul sewers with a minimum gradient of 1:200. This gradient will ensure a velocity greater than the minimum velocity specified in the Irish Water Code of Practice for Wastewater. A minimum size of 100m PVC SN8 is to be used for the private foul drains.

Each dwelling is to be provided with individual private foul connections to the main system with a foul water inspection chamber (FWIC) provided inside the boundary line of each dwelling. All main system sewers are located within roads or proposed open spaces. The proposed network will connect via gravity to the existing foul water network of the Meadowlands Estate. There is an existing foul sewer traversing the site from the Fairfield Estate to the north which has been incorporated into the design of the scheme, and will be maintained live during the construction phase.

Irish Water have been consulting in relation to the development of these lands and a Pre-connection Enquiry was submitted. Reference Number CDS21008632. A Confirmation of Feasibility date 7 December 2021 was received noting a wastewater connection of the development to be *Feasible without Infrastructure Upgrade*.

Storm Water

All storm water generated from the development (hard standing paved and roof surfaces) will be collected and managed on site in accordance with recommended sustainable urban drainage systems (SuDs) design practice.

The proposed development provides for the integration of such features as permeable paving, subsurface storage, swales and rain gardens into the design which will aid in the slowing of storm run-off and allow for natural drainage to ground in as far as the natural subsoils will permit. Any waters not absorbed will discharge to the gravity storm network and discharged from the site. The Rain Gardens and Swale have been sized to cater for a 1 hour storm of varying Return Events of 5, 30 & 100 year with an allowance for Climate Change of 20%. In terms of maintenance, both SuDS features and conventional drainage systems require regular maintenance to perform adequately.

It is proposed that all generated storm waters from the development will be collected via a separate stormwater gravity network and discharged to the existing storm sewer network of the Meadowlands Estate. All sewers proposed to be eventually Taken-In-Charge are located within public areas and generally under roads. The storm network has been designed to cater for a 1 in 5 year rainfall event utilising Met Eireann rainfall records. The provided Met Eireann data has been factored by an additional 20% to allow for the potential impact of Climate Change and an additional 10% to provide for Urban Creep. Under the original development of Meadowlands the overall lands

were catered for in terms of predevelopment run-off in the form of attenuation to be located within the parkland area to the west adjacent the River Sullane. Calculations for the proposed surface water sewer network have been completed by PHM Consulting Engineers.

Potable Drinking Water

The overall development will be serviced via a single connection off the existing 200mm water main located in the estate road front the scheme. The proposed water main will be a 100mm PE80 SDR17 provided in accordance with Irish Water Code of Practice for Water Networks. All junctions will be provided with 3-way valving. Hydrants will be positioned so that no dwelling is greater than 46m from a hydrant, in accordance with DoEHLG '*Recommendations for Site Development Works for Housing Areas*'. Irish Water was consulted in relation to the development of these lands and a Pre-connection Enquiry was submitted. A Confirmation of Feasibility dated 7 December 2021 was received noting a wastewater connection of the development to be Feasible without Infrastructure Upgrade.

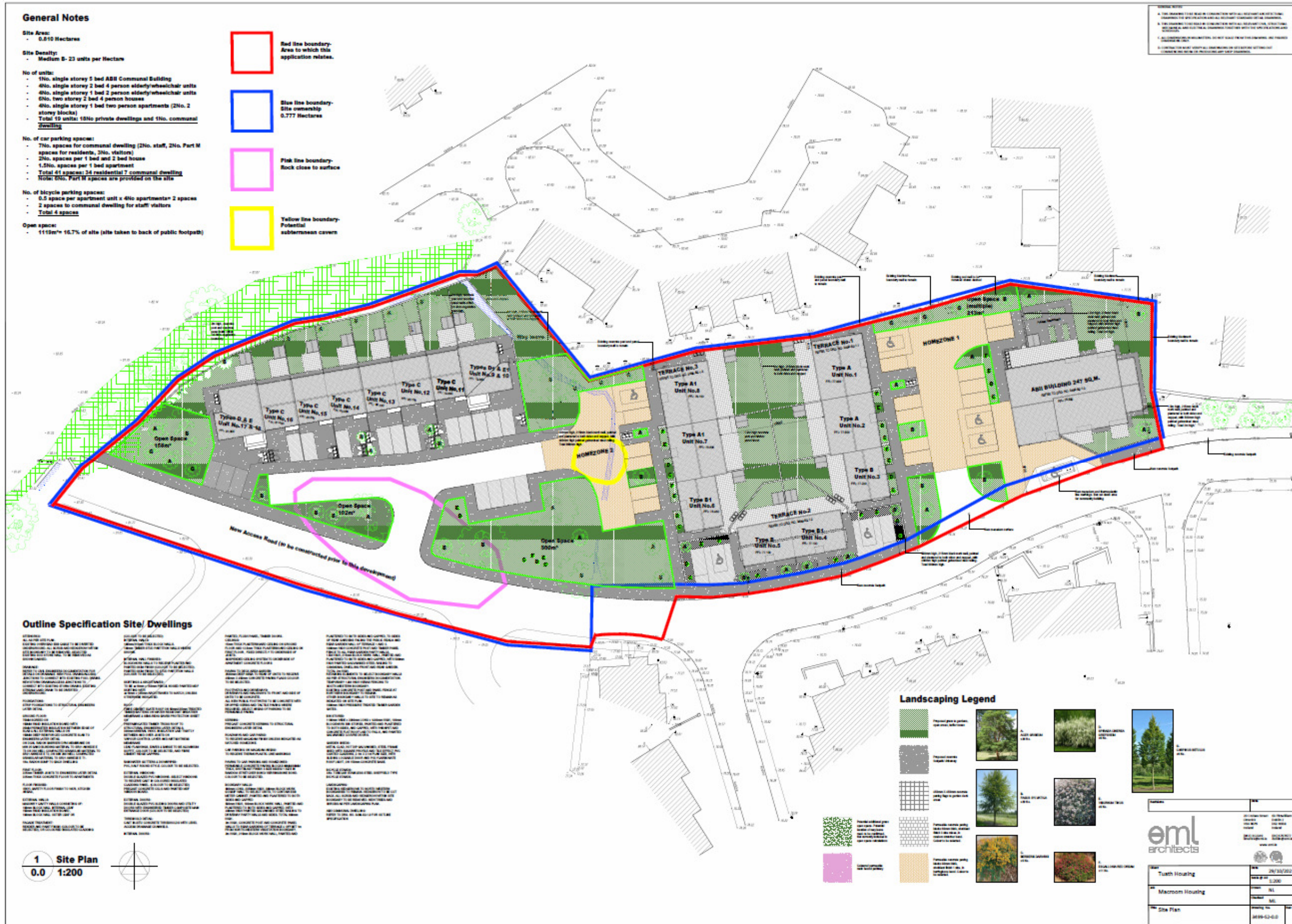
Space and Water Heating

The space and water heating installations proposed will be in accordance with current Building Regulations. The houses will be built to NZEB standards and in line with Part L of the Building Regulations. The overarching principal objective in the services design of the project is to reduce the overall primary energy load through good passive design methods.

An Air to Water heat pump shall provide heating & hot water to each Unit. Heating will be provided via either radiators or under floor heating zones located as per the design drawings. A 28mm flow and return shall be supplied from each heat pump unit. A 22mm take off shall feed both levels. All LPHW pipe work shall be Copper. Each floor will have an individual zone controller. The hot water storage tank will also have its own zone control. A heating control panel shall be provided to allow each resident the ability to set time schedules and etc. The location of the heating control panel shall be positioned within the kitchen /living space for ease of access.

The outdoor heat pump unit shall be located at high level via wall bracket. The unit shall be mounted on anti vibration mounts. The final location of the external unit shall be agreed by the client.

Figure 2.0: Proposed Site Layout & Specification



3.0 EIA SCREENING PROCESS

3.1 *Screening Methodology*

Screening is the first stage in the EIA process, whereby a decision is made on whether or not EIA is required. The EIA screening exercise initially assesses the development for Mandatory EIA using classifications defined in the appropriate legislation. Where no mandatory requirement is concluded, screening advances to sub-threshold development assessment, where the competent authority evaluates whether the project is likely to have a significant effect on the environment, with reference to its **scale, nature, location and context**.

This Screening Assessment was undertaken with regard to the following legislation and guidance:

- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).
- European Commission Environmental Impact Assessment of Projects, Guidance on Screening (2017).
- European Union Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (the ‘EIA Directive’),
- Guidance on EIA, Screening, European Commission, 2001;
- EIA, Guidance for Consent Authorities regarding Sub-threshold Development, DoEHLG, 2003
- The Planning and Development Regulations 2011-2013 (P&D Regulations)

A key first step within the screening process –is to address the requirement of the EIA Directive that EIA is confined to “projects”. While both the Directive and case law determines the extent of this term, as mentioned in earlier posts, the Court of Justice of the European Union (CJEU) has indicated that the embrace of the Directive “has a wide scope and broad purpose” and must catch all projects of environmental significance.

The Directive divides potential EIA projects into two lists, Annex I identifies all major development where EIA is compulsory, with Annex II listing those projects where EIA is necessary when what is proposed is “likely” to be associated with “significant effects on the environment”. EU Member states are granted discretion to set thresholds and other decision rules to indicate when such effects are expected, albeit that the possibility of a case-by-case analysis must be retained. Both the national criteria and any case-by-case assessment must be based on the indicative criteria for when EIA is required, which are set out in Annex III to the Directive.

The majority of Annex I to the EIA Directive has been transposed in a near-verbatim manner as Part 1 to Schedule 5 to the Planning and Development Regulations 2011-2013 (P&D Regulations). Most of Annex II is found in Part 2 of that Schedule, with the EU-generated text being supplemented by a series of national thresholds that, when they are exceeded, mandate that an EIS be prepared. In cases where a project is mentioned in Part 2 but is classed as “sub-threshold development”, it is usually necessary for a planning authority to undertake a case-by-case examination about whether the development is likely to be associated with significant effects on the environment. In other words, screening for whether EIA is needed must be done. Schedule 7

to the P&D Regulations, which mirrors Annex III to the Directive, sets down criteria to aid such a decision.

The Office of the Planning Regulator has issued guidance in the form of the Environmental Impact Assessment Screening- Practice Note, May 2021 which aids Planning Authorities as the Competent Authority (CA) in this area. An extract from the guidance not is set out in Figure 3.0 below.

Figure 3.0: Extract from Planning Regulator Guidance Note



3.2 Sub-threshold Development (Discretionary) EIA Screening

Other infrastructure projects may require EIA as outlined in Annex II of the EIA Directive: Irish legislation, which implements the EU EIA Directive, addresses the possible need for EIA below the mandatory thresholds. There is a requirement to carry out EIA where the competent/consent authority considers that a development would be likely to have significant effects upon the environment.

The key issue for the competent/consent authority in the context of the possible need for EIA of sub-threshold is whether or not such development is likely to have significant effects on the environment. Consideration of significant effect should not be determined by reference to size only. The nature and location of a project must also be taken into account.

The 1997 amending Directive (97/11/EC) introduced guidance for Member States in terms of deciding whether or not a development is likely to have 'significant effects on the environment'. The criteria have been transposed in full into Irish legislation, in the Third Schedule to the EC EIA (Amendment) Regulations 1999 (S.I. No. 93 of 1999) and in Schedule 7 to the Planning and Development Regulations 2001 (S.I. No. 600 of 2001). The European Union EIA Directive which was updated 2011 was transposed into National law in 2018 by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

The criteria as transposed in Irish legislation are grouped under three headings:

- 1. Characteristics of the Proposed Development**
- 2. Location of Proposed Development**
- 3. Characteristics of Potential Impacts**

The DoEHLG Guidance Document Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development states that “those responsible for making the decision must exercise their best professional judgment, taking account of considerations such as the nature and size of the proposed development, the environmental sensitivity of the area and the nature of the potential effects of the development. In general, it is not intended that special studies or technical evaluations will be necessary for the purpose of making a decision”.

Additionally, the screening process can be aided using the European Commission publication, Guidance on EIA Screening (June 2001) checklists, particularly the “Screening Checklist” and the “Checklist of Criteria for Evaluating the Significance of Environmental Effects”.

The criteria associated with each category, (i.e. the criteria that must be taken into account when making screening decisions on a case by case basis) is presented in Table 1.0. The requirements as set out below have been considered in the context of the proposed housing development, and a description of the potential impacts on the environment from the proposed project are outlined in Sections 4.0, 5.0 & 6.0.

Table 1.0 Article 27 Screening Criteria for Determining Likely Significant Effects

1. Characteristics of proposed development

The characteristics of proposed development, in particular:

- *the size of the proposed development,*
- *the cumulation with other proposed development,*
- *the use of natural resources,*
- *the production of waste,*
- *pollution and nuisances,*
- *the risk of accidents, having regard to substances or technologies used.*

2. Location of proposed development

The environmental sensitivity of geographical areas likely to be affected by proposed development, having regard in particular to:

- the existing land use,
- the relative abundance, quality and regenerative capacity of natural resources in the area,
- the absorption capacity of the natural environment, paying particular attention to the following areas:

- (a) wetlands,
- (b) coastal zones,
- (c) mountain and forest areas,
- (d) nature reserves and parks,

- (e) areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC,
- (f) areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded,
- (g) densely populated areas,
- (h) landscapes of historical, cultural or archaeological significance.

3. Characteristics of potential impacts

The potential significant effects of proposed development in relation to criteria set out under paragraphs 1 and 2 above, and having regard in particular to:

- the extent of the impact (geographical area and size of the affected population),
- the transfrontier nature of the impact,
- the magnitude and complexity of the impact,
- the probability of the impact,
- the duration, frequency and reversibility of the impact.

4.0 CHARACTERISTICS OF PROPOSED DEVELOPMENT

The characteristics of proposed development, in particular:

- the size of the proposed development,
- the cumulation with other proposed developments,
- the use of natural resources,
- the production of waste,
- pollution and nuisances,
- the risk of accidents, having regard to substances or technologies used.

4.1 Size and Scale of the Project

The proposed development is sub-threshold under the relevant legislation as set out in Section 4.2. The size of the development at 0.776 hectares is limited in area and scale. The geographic extent of the proposed works are confined to the immediate area of the proposed site. Accordingly, there are some minor impacts associated with the development phase, but these are considered to be short-term. The active works area comprises of the site groundworks required for the road, residential & community dwelling units, services, recreational excavation and construction. This scale of works is not considered significant.

4.2 Cumulation with Other Projects

Information on the site and the area of the proposed development was examined prior to the completion of this screening. The following data sources were reviewed in order to complete a thorough examination of all impacts:

- National Parks and Wildlife
- Environmental Protection Agency (EPA)- Information pertaining to water quality, and
- Geology and Licensed Facilities within the area.

- Cork County Council (e-plan website) – Information on planning history in the area in order to ascertain potential cumulative impacts.
- Web search for major infrastructure projects in the Macroom Area
- Cork County Development Plan (2022-2008)
- Blarney-Macroom Municipal District Local Area Plan 2017

Table 2.0: Recent Planning Applications Granted in Masseytown Area

PL Ref No	Address	Applicant	Description	Grant Date
05/54023 19/4234 21/7385	Meadowlands Masseytown Macroom Co. Cork	Massey Developments Ltd	Original 05 Application was for 248 No. single, two and three storey Residential Units, 5 No. ground floor Commercial Non-Retail Units.	21/02/2022

4.21 Adjoining Residential Development

The applicant Massey Developments Ltd submitted an application for extension of duration of planning permission on 16 Dec 2021. 106 units were permitted to be constructed as part of the final phase. Of this 66 units and have been fully completed as of Dec 2021. The remaining 39 units are currently under construction with foundations and concrete bases in place for 24 and blockwork under way. Massey Development Ltd purchased this unfinished ghost estate from Receivership (KPMG), during the 1st extension period of planning permission. A combination of sluggish demand, Covid, Brexit and the sourcing of labour have delayed the completion of this adjoining project since 2017.

4.22 New Section of dual Carriageway Road including By-Pass of Macroom Town

The N22 Baile Bhuirne to Macroom Road Development commenced construction in January 2020. The project includes for the construction of 22km of dual carriageway which will be primarily constructed offline of the existing N22. There will be interfaces between the new road development and the existing N22 at the eastern and western termini as well as two crossings of the existing road. The road will be constructed through challenging terrain which varies through the development from hilly remote land with rock outcrops at the western end, to low lying pasture lands to the east of Macroom and will cross a land-locked section of the Inniscarra Reservoir to the south east of Macroom. The project includes the construction of 130 structures, including crossings of the Sullane, Laney, Foherish and Bohill rivers. The junctions on the project will be at Slieveragh at the western end, at Toonlane east of Baile Mhic Íre, at Gurteenroe, Millstreet Road and at Coolcour at the eastern side of Macroom.

The project is divided into 3 sections for construction purposes:

Section 1: Bypass of Baile Bhuirne and Baile Mhic Íre; Slieveragh to Coolnacaheragh

Section 2: Middle section from Coolnacaheragh to Carrigaphooca

Section 3: Bypass of Macroom; Carrigaphooca to Coolcour

The cumulative impact of the planned development in combination with the partially completed residential development above located to the east and south-east of the proposed development is not considered to be significantly worse than any of the individual impacts associated with the construction and operation of the proposed development. The environmental impacts are lower from a residential development of this magnitude and scale when compared with the impact from single house developments. The Macroom by-pass will lead to a reduction in traffic congestion within the town centre and result in improved ambient air quality due to lower concentrations of particulate matter and NOx.

4.3 Use of Natural Resources

The construction of the proposed development will require the use of natural resources such as soil and sand, land and water wherever required. Having regard to the scale and nature of the proposed development, the use of natural resources during construction is predicted to be relatively minor. The proposed development will aim to reuse material on-site where possible. However, there will be a need for resources such as aggregate, timber, asphalt, concrete etc as part of the construction phase.

4.4 Production of Waste

The site preparation and construction phase of the development will give rise to quantities of Construction and Demolition (C&D) waste such as concrete, asphalt and soil. A significant portion of the clean soil and subsoil excavated during the development phase will be reused on site. A Construction Waste Management Plan has been prepared by PHM Consulting. The plan sets out in detail how all solid and liquid waste streams will be managed during the construction phase of the development. It is intended that the plan will be updated to include more site specific information once the Construction Management Team (CMT) is appointed.

Any waste arising from the proposed development will be segregated where possible to facilitate ease of recycling. Any waste removed off-site will be by an approved Waste Contractor who holds a current waste collection permit. All waste arisings which can not be re-used on site will be transported to facilities holding an appropriate certificate of registration, licence or permit, as required. If constructed, the proposed residential development is considered to be modest in scale and will not generate excessive waste beyond the typical municipal type and quantities expected in a domestic setting.

4.5 Pollution and Nuisances

Potential effects during construction of the proposed development include effects on water quality, air quality, traffic and nuisances and disruption caused by construction such as noise, vibration and dust. Further consideration of the potential impacts are provided in Section 7.0.

4.6 Risk of major accidents and/or disasters

The 2014 EIA Directive amendment introduced the requirement to assess the *'expected effects deriving from the vulnerability of the proposed development to risks of major accidents or disasters that are relevant to the proposed development'*. The term major accidents and disasters refers to events both internal and external to a proposed development that have the potential to cause significant harm to the environment, and generally relates to extreme events that would not reasonably be predicted or assessed within the other topic chapters of an EIA.

Construction activities to be undertaken as part of the proposed development will be standard in nature, well understood and are commonly undertaken. No risk of major accidents/disasters are identified. A Health & Safety Consultant will be appointed during the build process to ensure that all Health & Safety @ Work Regulations are closely monitored.

4.7 Characteristics Overview

The magnitude of the proposed works, when viewed individually and cumulatively, is small in the context of both the EIA threshold criteria and types of projects listed in the regulations which require EIA.

The proposed works comprises of a small development. The provision of additional residential development in the Macroom municipal area to meet the housing needs of the elderly and/or people with disabilities is a requirement in all areas of the country given Irelands current and future demographics. The construction of an acquired brain Injury unit is also best practice and in line with the proximity principle which will allow local individuals who have acquired such injuries to remain living in their local area with the necessary assistance.

The development will adjoin what is already a residential area within the hinterland of the town. This area is well connected to the Macroom town centre and also well serviced. There is a combined surface water and foul sewer located in relative close proximity to the proposed development. The location of this development close to existing residential areas will have a lower impact when compared with that of a new green-field site with poor connectivity link and where additional services may be required. The works will be undertaken in accordance with sustainable construction methodologies designed to reduce or eliminate wherever the potential for environmental impacts during the development phase.

The works will comprise the construction/extension of an access road, internal roads and footpaths, parking areas, houses and associated foul, storm water and drinking water service infrastructure. The construction work areas will be reinstated where possible with landscaped areas provided where shown. The proposed works will be restricted to the 0.776 hectare site and is therefore limited in terms of potential impact in a wider context.

An Environmental Officer and Environmental Consultant will be appointed to manage the environment aspects of the project during the construction phase. These appointees will ensure that the specific measures and controls set out in the Construction Environmental Management Plan compiled by PHM Consulting are implemented.

5.0 LOCATION OF PROPOSED DEVELOPMENT

5.1 Existing Land Use

The proposed development site is currently not utilised. The site is comprised of an irregular shaped greenfield area and slopes from north to south, and from west to east. There is a large spoil located at the north- west boundary. Some of this soil will be removed off-site as part of the construction works. An existing watercourse crosses the site from north to south. It is planned to pipe this land drain and run it in parallel with the proposed undergrounded power cables.

The land-use to the north, south and east of the proposed development is predominantly residential with new residential development under construction to the west and south-west of the proposed development site.

5.2 Relative Abundance, Availability, Quality & Regenerative Capacity of Natural Resources

The proposed development will have minimum impact on the quality and regenerative capacity of natural resources in the area. The site development works will have no measurable impact on the relative abundance or regenerative capacity of local natural resources. Where possible all materials products to be used in the development will be sourced locally in line with the proximity principle.

5.3 Absorption capacity of the natural environment

- (6.3.1) wetlands,
- (6.3.2) coastal zones,
- (6.3.3) mountain and forest areas,
- (6.3.4) nature reserves and parks,
- (6.3.5) areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC,
- (6.3.6) areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded,
- (6.3.7) densely populated areas,
- (6.3.8) landscapes of historical, cultural or archaeological significance

5.3.1 Wetlands

There are no wetlands/natural fen areas within 5kms of the proposed development site and therefore it can be concluded that there are no obvious constraints to the completion of the proposed housing development at the chosen location.

5.3.2 Coastal Zones

The proposed development is located in land and some 35kms from the coast so there will be no impact on the coastal zone.

5.3.3 Mountains and Forest Areas

There are no mountains or forested areas in the immediate area of the proposed development. The Mullaghanish-Musheramore Mountain range is located 5.3kms North-West. This sub mountain range forms a substantial part of the Boggeragh/Derrynasaggart Mountains in Co. Cork. The mountain range divided roughly into two sections by the R582 road which connects the towns of Macroom and Millstreet. Most of the site is over 200 m in altitude, rising to heights of 475 m in the eastern sector (Musherabeg) and 462 m in the western sector (Knockullane). Several important rivers rise within the site, notably the Foherish and Awboy.

A significant section of the sub mountain range amounting to approximately one-third is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. The principal tree species present are Sitka Spruce & Pine. The Gearagh Nature Reserve (see section 6.3.4) located approx 2.5km south-west of the proposed development is the largest area of alluvial woodland in Ireland (see section 5.3.4).

5.3.4 Nature Reserves and Parks

No nature reserves or National Parks affected by the proposed development. The Gearagh Nature Reserve is located 2.5km south-west of the proposed development. It is located in an area of submerged glacial woodland at the point where the River Lee descends from the mountains and spreads into an alluvial plain that extends for five kilometres. The Nature Reserve is designated a wetland of international importance under the Ramsar Convention, and also enjoys international protection as an EU Special Area of Conservation of 558 ha. The area is designated a nature reserve under the Irish Wildlife Act and the reservoir is a wildfowl sanctuary.

It is the largest area of alluvial woodland in Ireland and is comprised of a network of narrow channels separating small islands which are covered in oak, ash, hazel and hawthorn. Wild garlic is abundant in spring. The area is subject to frequent flooding and dangerous and difficult to access.

5.3.5 Areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC

There are four Natura 2000 sites within a reasonable distance of Macroom that could theoretically be impacted by the proposed development. The Gearagh River catchment which is both an SAC and SPA is in the same catchment (Lee) but is not linked because it is on the Lee main branch while Macroom is on the Sullane. The two join some distance below the town. The only sites with a definite pathway for possible effects are Cork Harbour SPA and Great Island Channel SAC which are 38km away downriver. St Gobnet's Wood SAC and the Mullaghanish Mountain SPA are above Macroom is altitude and have no ecological connection or link to the development. They are not considered to be even potentially at risk.

The proposed development site supports none of the habitats or species that are qualifying interests for the SAC so it cannot act as a reserve area in case of loss from the main sites. Although the site has a linkage to two downstream Natura 2000 sites, there are no particularly sensitive organisms or habitats that could be altered significantly by escaping material. In addition they would be protected by the two Lee reservoirs which act as sedimentary basins.

The works on the site will result in a temporary increase in dust and noise during construction, the displacement or exclusion of animal species during this time, the permanent loss of species and habitat where buildings and services are constructed and possible pollution events arising from accidental spillages of building materials such as cement or fuels. These latter can be confined to the immediate vicinity by established prevention measures which will be detailed by the construction management plan. It should be emphasised that they are potential local effects, most unlikely to reach any Natura 2000 site.

Despite the improbability of effects, a construction management plan will be prepared by the chosen contractor to guarantee measures to prevent deposits of soil on the local roads, to safeguard the storage of fuel oil on site and to avoid release of seepage from curing concrete onto existing roadways/shores. There is no likelihood that this development will have significant impacts on the integrity and functioning of the Natura 2000 site network or its site management objectives. This is a finding of no significant effects.

5.3.6 Areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded

No relevant National or EU Environmental Standards or limit values will be exceeded arising from the proposed development. There will be no direct discharges to groundwater or surface water arising from the proposed development. All foul storm water generated from the proposed development will be discharged to mains sewer. Any fugitive emissions or any other airborne emissions during the development will be minimal. Suitable measures/controls to be put in place to ensure environmental nuisance factors such as excessive noise levels and dust arisings are controlled during the development phase.

The proposed residential development will be built to NZEB standards and in accordance with Part L of the Building Regulations. Air to Water Heating space and hot water systems are proposed to serve each residential unit. The zoned heating system will increase efficiency and result in energy savings. No direct burning of fossil fuels will be required to heat the development so there will be no adverse impact on ambient air quality arising from the development.

5.3.7 Densely Populated Areas

The development is not expected to affect any densely populated areas. The site is located on the outskirts of Macroom. The town currently has a population of 3,765 inhabitants (C.S.O. Census, 2016) and has experienced significant population growth since the turn of the millennium. The Cork County Development Plan 2014 identified Macroom as a third tier employment location after the Cork Gateway (including Mallow Hub) and Clonakilty. The employment objectives within “Other Towns” are to “focus on local catchment employment in the town. Part of the strategy for towns such as Macroom is to provide an accompanying infrastructure programme to service land supply identified for future employment development focused on medium to small business/industry.

Macroom has a population target of 4,536 representing growth of 657 persons on Census 2011 figures. In order to accommodate this level of population growth, an additional 467 housing units will be required. A net housing land requirement of 23ha will be required to meet provide the level of additional housing units required to meet the target.

5.3.8 Landscapes of historical, cultural or archaeological significance

The proposed development is located outside the zone of archaeological potential indicated to the north and it unlikely that the proposed development will have any direct or indirect (visual) impacts to any archaeological monuments. However ground reductions associated with a development of this kind, in areas of previous generally undisturbed ground, have the ability to uncover and disturb hitherto unrecorded subsurface features, deposits, structures and finds of archaeological interest and potential. It is advised that prior to the commencement of development, the developer should engage the services of a suitably qualified archaeologist to undertake a programme of monitoring of all topsoil stripping required of the development. In addition it is advised that all topsoil stripping/general ground reductions onto the surface of the underlying subsoil should be monitored by an archaeologist. Such topsoil stripping should be undertaken by machine fitted with a toothless ditching/grading bucket.

5.4 Environmental Sensitivity Findings

All works will be confined to the proposed 0.776 hectare site apart from some minor service connection works and the extension of the existing access road. The potential for any direct or indirect impact on the natural or built environment and/or on any associated habitats is low and the likelihood of any significant effects occurring as a result of the works can be excluded.

6.0 CHARACTERISTICS OF POTENTIAL IMPACTS

6.1 Human Beings

The potential impacts are not considered to be significant. During construction there is the potential for temporary minor impacts related to traffic inconvenience, dust and noise. The active works area will be limited so potential impacts will be restricted in their geographic extent as well as their duration.

6.2 Flora & Fauna

No flora and fauna of ecological significance or sensitivity were recorded on or adjacent to the proposed development site. The Appropriate Assessment Screening Report prepared by Roger Goodwillie Consultant ecologist found that the proposed development site supports none of the habitats or species that are qualifying interests for an SAC so it cannot act as a reserve area in case of loss from the four designated sites located within 15kms of the proposed development.

Although the site has a linkage to two downstream Natura 2000 sites, there are no particularly sensitive organisms or habitats that could be altered significantly by escaping material. In addition, both sites would be protected by the two Lee reservoirs which act as sedimentary basins.

Despite the improbability of effects an environmental officer and environmental consultant will be appointed during the construction phase of the project to ensure that the measures and controls set out in the Construction Environmental Management Plan are implemented. These measures are designed to prevent the deposit of soil on the local roads, to safeguard the storage of fuel oil on site and to avoid release of seepage from curing concrete onto existing roadways/shores.

6.3 Soils & Geology

The construction of the development will be carried out in accordance with the environmentally sensitive construction methods and environmental management systems. Excavated soil and subsoil will be reused as part of site reinstatement and landscaping wherever possible. Any soil or other un-usable or surplus material will be taken from the site for reuse or disposal at another authorised facility and will be subject to normal statutory controls regarding waste transport and management. There will be no impact on soils and the underlying geomorphology or geology once the construction phase is complete apart from the minor cultivation of lawns and or garden spaces.

Euroguide Consulting were commissioned to undertake a Waste Acceptance Classification (WAC) of the stockpiled soil and stone material currently stored at the subject site in Masseytown. The aim of the exercise was to assess the material so that it can be removed as part of the development of the site in accordance with all relevant waste management legislation. The results of the soil sample analysis demonstrated that all 4 samples are classified as non-hazardous soil

and stone and were assigned a code of 17 05 04. The analytical results of all 4 samples meet the inert landfill (WAC) waste criteria as set out in EU Council Decision 2002/22/EC.

6.4 Surface Water & Ground Water

The construction phase will be carried out in accordance with detailed methodologies and mitigation proposals to ensure that potential impacts on water are either eliminated or reduced to low levels. Any material stored on site during the construction phase should be done so in bunded areas to prevent any accidental or inadvertent chemical release which could impact on groundwater surface water.

There will be no discharge to surface water or groundwater from the proposed development site during the construction phase or when the housing development is complete. The Construction Environmental Management Plan compiled by PHM Consulting contains specific measures and planned controls to ensure that no potential pollutants are permitted to enter groundwater or surface water during the construction phase of the project. All foul and storm water-off generated from the development will be discharged to a suitably sized mains sewer with sufficient capacity to receive the discharge.

6.5 Air & Climate

Potential short-term low probability impact on air quality in particular dust emissions during construction activities however this will be managed through best practice measures. The proposed development is not a recognised emitter of greenhouse gases with the potential to effect climate change. Plant and equipment utilised during construction and as part of the operational phase will use fossil fuels, but the potential impact associated with this is immaterial due to the short-term scale of the works. No significant impact anticipated. The only emissions to air will be fugitive emissions from plant and machinery vehicles used in the construction phase.

The proposed residential development will be constructed to NZEB standards and in accordance current Building Regulations. Air to water space heating and hot water systems are proposed to serve each residential unit. The burning of fossil fuels will not be required to heat any of the residential units planned so there will be no adverse impact on ambient air quality arising from the development. The concentrations of particulate matter, nitrous oxide and carbon dioxide from vehicle use associated with car usage in the post construction phase are considered insignificant in a wider context. The impact on air quality and climate from private car use is likely to become less significant going forward as the switch towards hybrid and electric vehicles gathers pace.

6.6 Noise & Vibration

There exists potential short-term noise impact during construction activities however this will be managed through best practice measures. Works should be confined to day-time hours (8am-8pm) and where possible noise impact from the construction works to be maintained below 55 dB LAeq 30 at the nearest Noise Sensitive Receptors (nearby dwelling houses). No significant noise nuisance impact is anticipated. There will be no works completed on site during the more sensitive night-time hours.

6.7 Landscape

Long term, slight neutral landscape and visual Impact. The subject works relate to the provision of a new housing and associated infrastructure in a suburban setting landscape. No measurable

impact is anticipated as the 0.776 hectare development is small in scale and will have no visual impact.

6.8 Traffic

It is proposed to provide a total of 18 No. dwelling units on the site plus a 5-bed communal Acquired Brain Injury dwelling. Access to the development will be from Oakridge Road to the south. This road serving the proposed development is a single carriageway. This roadway is, in general, modestly trafficked and no delays or queues occur in the vicinity of the proposed development. No on-road parking is planned or permitted as part of the development which will minimise any likelihood of traffic queues or probability of traffic accidents as a result of the proposed development.

The centre of Macroom town has suffered from heavy traffic volumes and congestion for many years as all vehicles travelling between Killarney and Cork on the N22 pass through the town centre. The opening of the Macroom Bypass section of N22 Baile Bhuirne to Macroom new dual carriageway is imminent. The by-pass of Macroom will lead to a reduction in traffic volumes and congestion in the town centre and result in improved ambient air quality due to lower concentrations of Particulate Matter and Nitrous Oxide (NOx).

6.9 Material Assets

During construction there is the potential for temporary minor impacts related to traffic flow inconvenience but there are no long term negative consequences identified arising from proposed development.

6.10 Cultural Heritage

The archaeological and cultural research carried out indicated that there are no protected structures or recorded archaeological monuments within the boundary of the proposed development. There is a zone of archaeological potential to the north but the proposed development site is located outside of this area. No direct or indirect (visual) impacts to any archaeological monuments will occur as a result of the development proceeding.

6.11 Environmental Impacts Appraisal

Overall the characterisation of the potential Environmental impacts associated with the proposed development will be low and for the most part negligible. Significant environmental effects can be ruled out at this point in the Environmental Impact Assessment process without a requirement for further surveys, investigations and assessments.

7.0 CONCLUSIONS

The proposed development is sub-threshold under the EIA Assessment process. It is concluded that the characteristics of the potential impacts are not considered to be significant. There are no long-term negative impacts which can be associated with the project. Whilst temporary noise levels and disturbance are typical of any construction phase, the proposed works are generally remote from sensitive receptors and any potential impact will be short term and effectively managed through best practice measures. No impact interactions have been identified. No likely significant long-term or permanent negative environmental impacts have been identified in the course of the screening process. All major works will be confined to the proposed 0.776 hectare site.

The construction of 18 No. dwelling units and a 5-bed communal Acquired Brain Injury dwelling will not give rise to waste types and volumes that are considered to be exceptional. If constructed, the proposed residential development will be modest in scale and will not generate excessive waste beyond that of typical municipal waste arisings expected in a domestic setting.

The only emissions to air during the construction phase of the development will be fugitive emissions from plant and machinery vehicles used in the build process. The development will be constructed in accordance with current NZEB standards and Part L of the Building Regulations. Efficient Air to Water space and hot water heating systems are proposed which will result in energy savings. No burning of fossil fuels will be required to heat the development so there will be no adverse impact on ambient air quality arising from the development.

The findings of this report and the Appropriate Assessment Screening Report completed as part of the assessment process have shown that the potential for any direct or indirect impact on surface water groundwater and other environmental media including protected/designated areas is low. The likelihood of any significant environmental effects occurring as a result of the proposed development can therefore be excluded.

8.0 REFERENCES

Blarney-Macroom Municipal District Local Area Plan 2017

Cork County Development Plan (2022-2008)

Circular Letter: PL 05/2018 27th August 2018 Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive) and Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

EIA Guidance for Consent Authorities regarding Sub-threshold Development (DEHLG, 2003),
Guidelines on information to be contained in EIA (EPA, 2002)

European Commission Environmental Impact Assessment of Projects, Guidance on Screening (2017).

Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development 2003

Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment August 2018

Guidelines on the Information to be contained in Environmental Impact Assessment Reports, Draft August 2017 (EPA, 2017) was also consulted.

Office of the Planning Regulator (May 2021) Environmental Impact Assessment Screening- Practice Note