

Chapter 2:

Project Description & Alternatives Examined

2.0 PROJECT DESCRIPTION AND ALTERNATIVES EXAMINED

2.1 INTRODUCTION AND TERMS OF REFERENCE

This section of the EIAR has been prepared by John Spain Associates, Planning & Development Consultants, and provides a description of the proposed development and also explains the evolution of the scheme design through the reasonable alternatives examined. This chapter of the EIAR was prepared by Luke Wymer, BA, MRUP, Adv. Dip Planning and Environmental Law, Dip. Project Management, MIPI, Senior Planner at John Spain Associates, Paul Turley, BA, MRUP, Dip Environmental & Planning Law, MIPI, Executive Director, and approved by John Spain, Managing Director of JSA. The description of the proposed development is one of the two foundations upon which an EIAR is based (the other being the description of the existing environment described in this chapter and by each of the specialist consultants in the subsequent chapters). It is also a requirement of the EIA Directive (as amended) to present an outline of the main alternatives considered and a justification of the final proposed development.

A systematic approach in accordance with the Draft Guidelines on the Information to be Contained in EIARs (2017), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018), and other EIA guidance documents was used to ensure all relevant aspects of the development are accurately and fully described. The objective is to provide a description of the proposed development in sufficient detail, which when taken together with the description of the existing environment provided, will allow an independent reader without acquired technical environmental knowledge, to understand the significant impacts likely to arise from the proposed development.

The description of the proposed development is set out in this chapter and the following chapters by each specialist consultant in terms of those environmental topics which will form the basis of the impact assessment process and the characteristics of the proposed development which could potentially affect population, human health, cultural heritage and archaeology, biodiversity, landscape, land and soil, water, air quality, climate, noise, vibration, wind and material assets and the interaction between the aforementioned factors. The EIA Directive also requires that the description of the site, design, size or scale of the development, considers all relevant phases of the existence of the project from its construction through to its existence and operation (and where applicable its restoration or decommissioning).

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

This chapter of the EIAR also sets out the alternatives considered by the design team during the process of the preparation of the current planning application. Under Directive 2011/92/EU as amended by Directive 2014/52/EU, Article 5(1) requires that the developer shall include at least:

- A description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;
- Any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.

Annex IV, Point 2 of the amended directive provides further clarity on the assessment of alternatives in stating:

“A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics,

and an indication of the main reasons for selecting the chosen option, including a comparison of environmental effects”.

The 2017 European Commission guidance on the preparation of the Environmental Impact Assessment Report states that *“within the context of the EIA process, Alternatives are different ways of carrying out the project in order to meet the agreed objective. Alternatives can take diverse forms and may range from minor adjustments to the Project, to a complete reimagining of the Project”.*

The European Commission guidance further notes that the consideration of alternatives is an important part of the overall EIA process, “which ought to be reflected in the effort and resources allocated to this part of the EIA process”.

The consideration of alternatives provides for an opportunity to adjust the Project’s design in order to minimise environmental impacts (or risks thereof). The Commission guidance document on the preparation of EIARs notes that the selection and consideration of alternatives is limited in terms of feasibility (i.e. an alternative should not be discounted solely on the basis that it would inconvenience a developer, however, if an alternative is *“very expensive or technically or legally difficult”*, it would be unreasonable to consider it as an alternative).

In compliance with the requirements of the Directive, as amended, this chapter of the EIAR presents a description of the reasonable alternatives studied and considered by the applicant and design team, and sets out the main reasons for selecting the chosen option with regards to the environmental impacts of the chosen option and the alternatives considered.

2.2 SITE LOCATION AND DESCRIPTION

The subject site is strategically located along the Dublin-Belfast Corridor, southeast of Drogheda Town Centre, adjacent to the Belfast – Dublin rail line, and within a 30-minute drive of Dublin Airport. MacBride railway station is located approximately 2.2km north west of the subject site.

To the south-west of the subject site lies the Grange Rath residential development, and beyond that the Southgate Centre which provides employment, retail and leisure facilities.

Overall Landholding

Our client’s lands are situated to the west of Colpe Road, north of the Belfast-Dublin rail line and west of Mill Road, approximately 2.5km east of Drogheda town centre in the townland area of Colp. The applicant’s landholding, extending to approximately 30 hectares, goes beyond the perimeters of the proposed development to incorporate lands to the east of the main body of the subject site and west of Colpe Road. The proposed development includes an access road and roundabout branching west from the intersection of Mill Road and Colpe Road implemented to access the site.

The red line boundary of the proposed development also branches to the south, along Colpe Road, with an additional route extending from the south-western edge of the site. This crosses the railway line and south to connect with existing drainage infrastructure at Park Rise and will facilitate the implementation of a new pedestrian footbridge linking to the Grangerath development.

The overall landholding exists as predominantly greenfield lands with a single residential dwelling in the eastern segment, accessed from Colpe Road. As noted above, the landholding advances to the south of the railway line in the south east and south west corners of the site respectively. .

The overall landholding is characterised by open agricultural land with field boundaries defined by hedgerows and mature treelines. The lands rise gradually in elevation moving west from Colpe Road and are bisected by

a 10kV powerline on a north east orientation. A gas line wayleave on a northern orientation travels through the central part of the landholding.

The landholding is adjacent to residential dwellings located in a linear fashion along Mill Road to the east, with the Gaelscoil an Bhradain Feasa school adjoining to the north east. A residential dwelling and associated car washing business is located immediately east of Colpe Road to the east of the applicant’s landholding, with St. Columba’s church and graveyard further east. The residential area at Grangerath is located beyond the railway line to the south. The Stagrennan Stream is located a short distance north of the client’s land holding.

The landholding is accessible by bus services 910 and 912 which serves the bus stop on Colpe Road immediately to the east of the applicant’s lands. These provides links from Grangerath in the west to Laytown & Bettystown and beyond to Dublin via the M1 every 30 minutes. Bus route 101, located on the Dublin Road, approximately 1km west of the landholding also provides links between Drogheda at 20 minute intervals. The lands are located approximately 1.8km east of Drogheda railway station.

Our client’s overall landholding in this location is currently primarily subject to residential zoning post 2019 under Zoning Objective ‘A1’, as well as Zoning Objective ‘WL’ to protect strategic lands from inappropriate forms of development which would impede the orderly expansion of a strategic urban centre within the Meath County Development Plan 2013-2019 and a small portion of the site is subject to an open space zoning. It should be noted that the vast majority of the proposed development is located on residential zoned lands at the western part of the site.



Figure 2.1: Approximate Overall Landholding in Applicant / Owner’s Control in Blue (Google Maps)

It is noted that the landholding holds planning permissions for a temporary school to the west of Mill Road under Meath County Council Reg. Ref.: LB190739; and also, for a 4 no. storey commercial office building located on the site of the existing residential dwelling to the west of Colpe Road under Reg. Ref.: LB180620, which included road infrastructure and site services including water supply, foul drainage and surface water drainage. A further permission for an attenuation basin approved under Reg. Ref.: LB180620 exists in the north eastern part of the site. Figure 2.2 below notes the permitted site layout under Reg. Ref.: LB180620.

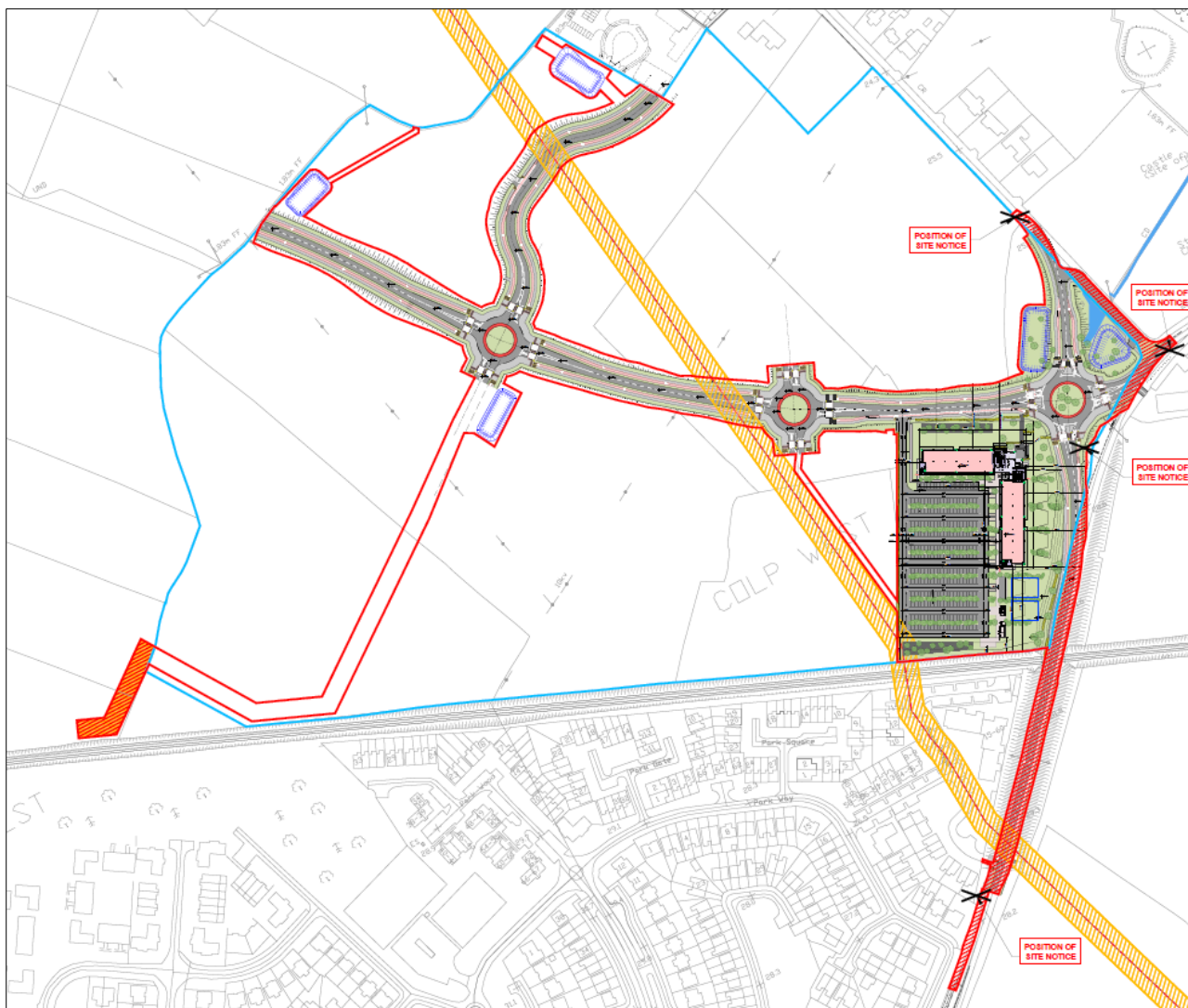


Figure 2.2: Permitted site layout under Reg. Ref.: LB180620

The Subject Site

The subject site is located on zoned lands at Colp West, Drogheda, Co Meath approximately 2.9km south east of Drogheda Town, 2 km south east of Drogheda (MacBride) railway station and approximately 1.3km south of the Boyne River. The site extends to approximately 13.44 hectares.

The site is located north of Colpe Road and to the west of Mill Road and Gaelscoil an Bhradain Feasa and is bordered to the south west by the Dublin-Belfast railway line. As noted above, the site is located northwest of the permitted commercial development at Colpe Road Reg Ref: LB/180620, which included road infrastructure and site services including water supply, foul drainage and surface water drainage, and the temporary primary school permitted under Reg. Ref.: LB190739. The lands are predominantly greenfield agricultural lands and gradients are gentle in nature, falling gently moving north, with levels ranging from 24m to 29.5m AOD.



Figure 2.3: Approximate extent of the subject site of the proposed SHD development (Google Maps)

The proposals also include a cycle and pedestrian route across the Dublin-Belfast railway line to the west of the site and facilitate a connection from Gaelscoil an Bhradain Feasa to the Grangerath residential development beyond the railway line to the south. The site is shown outlined in red above.

2.3 PROJECT OVERVIEW

The proposal is for development consisting of the following, as described in brief within the public notices:

The proposed development consists of a residential development comprising 357 no. residential units, a childcare facility and associated outdoor play area, road infrastructure, a pedestrian bridge over the railway line and associated pathways, all associated open space, cycle and pedestrian infrastructure, services and all other associated development on a site of c. 13.44 hectares.

The 357 no. residential units proposed consist of 169 no. houses, 52 no. duplex apartments and 136 no. apartments.

The 169 no. houses will consist of the following:

- 104 no. 3 bedroom units*
- 65 no. 4 bedroom units*

The 136 no. apartment units will consist of the following:

58 no. 1 bedroom units

78no. 2 bedroom units

The 52 no. duplex units will consist of the following:

52 no. 3 bedroom units

The proposed childcare facility is a two storey building with a GFA of 439 sq.m. The proposed houses are 2/3 storeys in height and the duplex/apartment blocks are 3 - 6 storeys in height.

The development includes road infrastructure comprising of a link street approximately 652m in length (including changes to the previously permitted road infrastructure under Reg. Ref.: LB/180620), including bus stops, 1 no. roundabout, pedestrian crossings and c. 246m long connection of the link street to the east to facilitate a connection to the existing school on Mill Road (Gaelscoil an Bhradáin Feasa). The road infrastructure also includes the realignment of a section of Colpe Road and the realignment of the southern section of Mill Road, and includes proposed cycle lanes/paths, footpaths, grass verge, and the provision of a footpath and cyclepath / cycle lane on Colpe Road to tie-in with the existing shared footpath / cyclepath, to the south-west of the railway line.

The proposed new pedestrian bridge will cross the existing Dublin to Belfast railway line and will link the proposed SHD development to the existing Grange Rath housing development to the south-west.

The development includes associated site and infrastructural works including all associated road infrastructure, foul and surface / storm water drainage (including upgrading of water services on Mill Road), surface water management including attenuation and storage features, a pumping station, watermains and utilities, 592 no. car parking spaces, 532 no. cycle parking spaces, public open space including a linear park, bin and bike stores, 2 no. substations, landscaping consisting of new tree planting, hedges, berms and grass planting, boundary treatments, public lighting, and all associated site and infrastructural works.

2.4 STATUTORY PLANNING CONTEXT

The subject lands are subject to national, regional, sub-regional, county and local planning policy. The following outlines the key planning documents of relevance to the future development of the subject lands. This section will not address the detailed policies and objectives contained in the various plans which are relevant to the proposed residential development at Colp West, as these are addressed in a separately bound Planning Report and Statement of Consistency prepared by John Spain Associates which accompanies the planning application.

National

- National Planning Framework - Project Ireland 2040;
- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009);
- The Urban Design Manual (A Best Practice Guide) (2009);
- Delivering Homes, Sustaining Communities (2008) and the accompanying Best Practice Guidelines - Quality Housing for Sustainable Communities;
- Quality Housing for Sustainable Communities (2007);
- Sustainable Urban Housing: Design Standards for New Apartments (2018)
- Design Manual for Urban Roads and Streets (2013);
- Urban Development & Building Height Guidelines (2018);
- Smarter Travel: A Sustainable Transport Future - A New Transport Policy for Ireland (2009).
- The Planning System and Flood Risk Management – Guidelines for Local Authorities (2009).

Regional

- Eastern and Midland Regional Assembly –Regional Spatial & Economic Strategy (RSES), (2019).

County

- Meath County Development Plan 2013-2019

Local

- Southern Environs of Drogheda Local Area Plan 2009-2015

The Meath County Development Plan 2013-2019 sets out the development framework for lands in the county up to 2019. The review of the current Development Plan has recently resumed following the adoption of the Regional Spatial & Economic Strategy for the Eastern & Midland Regional Assembly area. The Draft Meath County Development Plan 2020-2026 is expected to go on public display in December 2019 for a for a 10 week period of consultation, during which time formal submissions can be made.

The Draft Meath County Development Plan is required to be consistent with the content of the RSES. The current Development Plan details land use and development objectives, settlement hierarchy, development control standards and policies and objectives for the protection of the built and natural environment of the County. It is the most relevant document pertaining to the future development of the subject lands.

The Southern Environs of Drogheda Local Area Plan 2009 was updated in 2015 to incorporate the relevant content and to align with the aims and objectives of the Meath County Development Plan 2013-2019. This included land use zoning objective mapping and residential lands evaluation.

The Statement of Consistency provides a detailed assessment of the proposed development in the context of all of the above.

2.5 ALTERNATIVES EXAMINED

2.5.1 Introduction

As set out within the introduction to this chapter, the EIA Directive (2014/52/EU) requires that Environmental Impact Assessment Reports include “A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”

The presentation and consideration of various alternatives investigated by the project design team is an important requirement of the EIA process. This section of the EIAR document provides an outline of the main alternatives examined throughout the design and consultation process. This serves to indicate the main reasons for choosing the development proposed, taking into account and providing a comparison the environmental effects. For the purposes of the Regulations, alternatives may be described at three levels:

- Alternative Locations.
- Alternative Designs.
- Alternative Processes.

The DHPLG 2018 EIA Guidelines state:

“Reasonable alternatives may relate to matters such as project design, technology, location, size and scale. The type of alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment. For example, some projects may be site specific so the consideration of alternative sites may not be relevant. It is generally sufficient for the developer to provide a broad description of each main alternative

studied and the key environmental issues associated with each. A 'mini- EIA' is not required for each alternative studied." (emphasis added)

Pursuant to Section 3.4.1 of the Draft 2017 EPA Guidelines, the consideration of alternatives also needs to be cognisant of the fact that *"in some instances some of the alternatives described below will not be applicable – e.g. there may be no relevant 'alternative location'..."*

The Draft 2017 EPA Guidelines are also instructive in stating:

"Analysis of high-level or sectoral strategic alternatives cannot reasonably be expected within a project level EIAR... It should be borne in mind that the amended Directive refers to 'reasonable alternatives... which are relevant to the proposed project and its specific characteristics'".

The key environmental and practical considerations which influenced the design of the proposed development and alternative layouts on the subject lands included the following:

- The need to achieve a sustainable density to comply with the requirements of the guidelines for Sustainable Residential Development in Urban Areas and the policies of the Meath County Development Plan, given the location of the subject site which is contiguous to the existing built up area of Drogheda, and accessible to the town centre.
- The need to consider the interaction of the development with existing adjacent development, and the need to preserve the amenity, privacy and security of these properties.
- The topography of the subject site and existing site features including field drains and hedgerows, including trees.
- The need to ensure any residential development provides a good mix of housing types which meet current market demand, and which are deliverable in the short to medium term, assisting to achieve national planning policy objectives.
- Protection and enhancement of hedgerows and trees where possible (in particular along site boundaries) to safeguard and enhance the amenity and ecological capacity of the area.
- The need to provide for high quality open space.
- The planning history of the site.
- The quality of the urban environment to be delivered and the associated impact on human health.
- Access, permeability and connectivity with surrounding areas and land uses and the implementation of a new pedestrian bridge linking to lands on the opposite side of the adjacent railway line.

The following includes an analysis of alternative development options for the site, describing design options and changes which were incorporated into the scheme as the proposals progressed through extensive and detailed pre-application discussions with the Planning Authority. The key considerations and amendments to the design of the scheme, having regard to and comparing the key environmental issues, are set out and discussed.

The subject scheme is for the construction of residential units, a childcare facility, associated open space and road and service infrastructure, on lands which are zoned for residential use in the Meath County Development Plan 2013-2019. Having regard to the above it was not considered necessary to consider alternative sites for the proposed development.

A 'do-nothing' scenario was considered to represent an inappropriate, unsustainable and inefficient use of these strategically located residential zoned lands; particularly having regard to the opportunity to provide much needed housing for Drogheda and the wider area. The suitability of the lands for development, i.e. located strategically for the sequential growth of Drogheda, adjacent to public transport services and good quality road and pedestrian/cycle infrastructure, were also key considerations.

2.5.2 Description of Alternative Locations

As outlined above, the subject site is primarily zoned A2 under the Meath County Development Plan 2013-2019. The portion of lands zoned A2 for residential use in the period post 2019 forms the majority of the red line site area. The remaining area of the site is zoned 'WL' White Lands is included in the proposed development in order to achieve development plan objectives, primarily the implementation of a Major Distributor Roads Objective MA OBJ2 through the Mill Road / Marsh Road Urban Design Framework Plan (UDFP) lands. This road connection was partially implemented under Reg. Ref.: LB/180620. White lands adjoining the existing school to the north east, is included for completeness and is considered an appropriate use which complements the wider development. The inclusion of a small area of lands zoned for open space provision to provide a link across the railway line to Grange Rath is considered appropriate in the context of the relevant zoning objective, as this linkage is to provide connectivity and permeability for the wider area and will not change the use of this existing open space.

As such consideration of alternative sites for the construction of houses and apartments proposed in this residential development proposal was not considered necessary. The proposals contribute positively to the development of the wider area and optimises and revises the roads and infrastructure permitted as part of the permitted development under Reg. Ref.: LB/180620, granted on 31st July 2018, contributing to the sustainable use of the lands.

During the design process for the proposed development several iterations of the site layout and alternative designs were considered, illustrated through the development of a masterplan for the site, as discussed in greater detail below. Comments and feedback following a formal Section 247 Meeting with the Planning Authority prior to the submission of the Pre-Application Consultation Request to An Bord Pleanála. Items raised at the tri-partite meeting and the content of the Board's Opinion are considered to have been addressed in the preparation of the final submission.

A significant reworking of the scheme was undertaken following the receipt of the Opinion of An Bord Pleanála after the tripartite pre-application meeting, in order to fully address the comments and issues raised by the Board.

The final planning application demonstrates that the subject site and the surrounding area possess the environmental capacity to accommodate the proposed development without any significant risk of impact upon environmental sensitivities due to the site location and will assist in achieving the aims and objectives of the County Development Plan through the implementation of residential uses at a strategically located and well serviced site in close proximity to a range of community facilities.

An assessment of the proposals in the context of the residential land evaluation incorporated into the Meath County Development Plan is provided in the accompanying Statement of Response provides a justification for the development.

2.5.3 Alternative Uses

In addition to residential use, there are other ancillary land uses which may be considered on these lands as part of a primarily residential development under the SHD planning process. It is not considered that an alternative to residential development or other associated uses would result in the best use of these lands, particularly having regard to the general acknowledged need for housing and considering the wider objectives and approved infrastructure on the lands. The proposed residential development does, however, include provision of a childcare facility to serve the needs of the proposed development.

The subject site is greenfield in nature, but is bound by existing and permitted development to the east, west, and south, with commercial and educational development also permitted on the client's landholding and

adjoining lands, contributing to a well-serviced site which will benefit from adjoining development and associated infrastructure. The applicant is committed to implementing this key part of the framework for the wider area and associated roads and drainage infrastructure, as well as public open space and childcare. The development will facilitate pedestrian and cycle connections to the neighbourhood of Grangerath, south of the railway line and enable a safe and convenient link to Gaelscoil an Bhradan Feasa to the east of the application site. The proposals will also assist in the delivery of the New Mill Road, connecting Colpe Road in the south east to Marsh Road in the north west.

2.5.3 Description of Alternative Designs

This section provides an overview of how the proposed development has evolved to date by way of consideration of alternative designs and how the final Strategic Housing Development scheme before the Board has been reached. Various options were considered as the scheme progressed and key considerations and amendments to the design were incorporated, having regard to the key environmental issues pertaining to the lands.

The environmental issues which have most informed the design process to date relate to archaeology, ecology, water, noise, and the potential impacts upon existing and future traffic and transport in the area. These issues have informed the consideration of alternative designs and layouts up to the formalisation of the scheme submitted in this final application to the Board.

As noted above, the application site is c. 13.44ha and has been subject to design progression through an iterative process of design options for the subject site.

The initial design for the site prepared in August 2018 is noted below in Alternative 1.



Alternative 1: Draft layout proposed by DDA Architects in August 2018, showing illustrative future context

The proposed development was subject to an exploratory pre-application meeting and a Section. 247 detailed pre-application consultation with Meath County Council prior to the submission of the SHD pre-application request to the Board. This helped to inform the design team’s concept proposals for the subject site.

This draft design informed initial Section 247 pre-application discussions in a meeting with Meath County Council held on 3rd October 2018. The Planning Authority raised a number of points of discussion which included issues of land ownership, release of Phase II lands, linkages and sense of place, urban design, open space, traffic and transport and environmental and ecological issues.

The design was informed by the content of the UDFP for the area and makes provision for the New link street in accordance with the Roads Objective MA OBJ2 at the lands, as well as a linear park and interconnected and permeable development, including higher density development along the New Mill Road and a range of housing types.

The draft design was developed further in preparation for the submission of the Pre-Application Consultation Request to An Bord Pleanála in December 2018. The second iteration of the design is illustrated by Alternative 2, below.



Alternative 2: Layout plan as submitted to An Bord Pleanála at Pre-Application Consultation Request Stage

The key issues from an environmental perspective which arose at the pre-application consultation with the Planning Authority and which influenced the proposals submitted with the pre-application request to An Bord Pleanála can be summarised as follows:

1. The ecological value of the development lands and the potential impact arising from the proposals.

2. The nature and quantum of traffic included within the development and the impact on the surrounding road network.
3. Issues concerning waste and the provision of adequate facilities for residents.
4. The provision of drainage and water infrastructure serving the site and incorporating SUDS.

The proposals as noted within Alternative 2 above, demonstrate the progression of the scheme in design and layout terms, incorporating variations to landscaping and open space whilst refining and consolidating the new link street and linear open space park. The siting and layout of the dwellings and apartment buildings on site has been amended and modified to ensure greater legibility, provide a strong uniform frontage to New Mill Road and to provide greater character to the principal point of entry to the site from the east.

The siting of dwellings in both the westerly and easterly segments of the site has been amended to ensure a more efficient layout in order to optimise the use of land in each location and contribute positively to the quantum and quality of residential amenity at each unit. Part of the north-eastern area of the applicant's ownership boundary has been incorporated into the red line boundary to avoid a disjointed approach which would fail to interact with the existing adjacent school.

The scheme as submitted with the pre-application request to the Board had been progressed via an iterative process, with changes having been made during the pre-application process with the Planning Authority.

The scheme as submitted to the Board at pre-application stage comprised of a residential development comprising of 352 no. residential units and a childcare facility on a site of c. 9.56 hectares.

The 352 no. residential units proposed consist of 176 no. houses, 44 no. duplex units and 132 no. apartments. The 176 no. houses will consist of 61 no. 4 bedroom units and 115 no. 3 bedroom units. The 176 no. duplex and apartment units will consist of 54 no. 1 bedroom units, 100 no. 2 bedroom units and 22 no. 3 bedroom units. The development proposes a net density of 42 units per hectare.

The proposed childcare facility was a single storey building with a GFA of 308 sqm. The proposed houses are 2 storeys in height and the 7 no. duplex/apartment blocks are 3 - 6 storeys in height. The development included associated site and infrastructural works including all associated road infrastructure, foul and surface / storm water drainage, surface water management and storage features, 568 no. car parking spaces, c. 1.58ha of public open space including a linear park, bin and bike stores, substations, landscaping and boundary treatments and all ancillary works.

Board Opinion

During the course of the pre-application tripartite meeting with the Board, and within the Opinion of the Board, which was issued thereafter, a number of issues were raised which require further consideration and amendment to constitute a reasonable basis for an application for SHD.

In respect of environmental issues, the Board sought further consideration relative to surface and storm water management for the site having regard to the Planning Authority's opinion.

This item has been responded to appropriately within the accompanying Flood Risk Assessment prepared by DBFL Consulting Engineers, with the proposed drainage strategy noted as compliant with the policies of Meath County Development Plan and the Drogheda Southern Environs LAP. The Infrastructure Design Report details the provision of drainage infrastructure services at the site in accordance with the Greater Dublin Strategic Drainage Study (GDSDS) in terms of water management and discharge. SUDS elements are implemented to attenuate and manage surface water run off including swales, bio-retention areas and permeable paving.

The Board also request the submission of an overall landscaping masterplan for the development site and a site layout plan indicating the full extent of tree retention and removal. This item has been appropriately addressed through the provision of the accompanying landscaping masterplan prepared by Dermot Foley Landscape Architecture, which includes details on tree removal and retention at the site.

A Stage 2 Appropriate Assessment report (Natura Impact Statement) has been prepared by Openfield Ecological Services and accompanies this application.

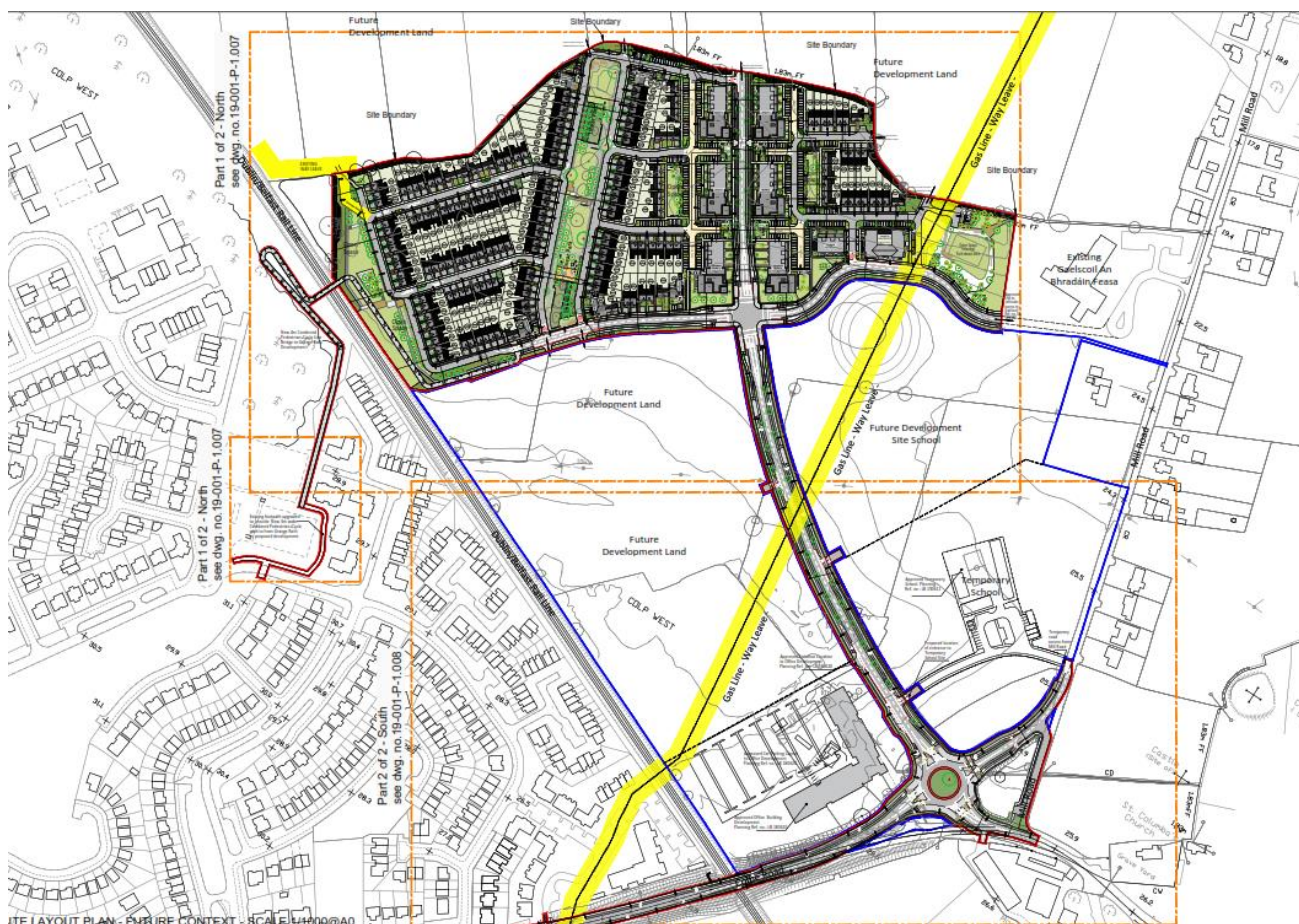
The AA Screening Report submitted herewith notes that *'significant effects to the Boyne Coast and Estuary SAC cannot be ruled out'* as a result of pollutants arising from the construction of the development reaching the Natura 2000 site via Stagrennan Stream. In respect of this, the NIS provides a number of mitigatory measures to be implemented to ensure that *'no adverse effects to the integrity of the Boyne Estuary SAC will occur'*.

In accordance with the Board's request, a revised Archaeological Assessment Report (now forming part of the EIAR) has been prepared and accompanies this submission. This reflects the comments provided by the Department of Culture, Heritage and the Gaeltacht which addresses the method of preservation of the archaeological sites and their conservation and presentation within the context of the proposed development. The subject site now excludes an area which was included at pre-application stage, which included an archaeological feature, thereby having a reduced impact on archaeology and cultural heritage vis a vis previous iterations.

The EIAR chapter prepared by Archer Heritage Planning notes that an assessment comprising a desk-based study, field survey, geophysical survey and test-excavations carried out at the site found that *'no potential archaeological features were recorded in the historical maps of the subject site'* and that *'there are no visible remains of the medieval church of Colpe (ME021-012004) the location of which lies approximately 500 metres south east of the residential development'*.

It acknowledges that previous test trenches associated with Reg. Ref.: LB180620 revealed three linear features associated with enclosure ME021—11002. Further test trenching on the subject site revealed a single archaeological feature, a shallow linear ditch, which may correspond to a linear feature highlighted in a geophysical survey. A total of 5 no. mitigation measures are proposed by the Report, detailed further in Chapter 4 of this EIAR to adequately address Item 13 of the Board's Opinion.

Having regard to the Board's Opinion, a number of amendments have been made to the proposals in order to appropriately and effectively address the items raised, and to avoid impacting on archaeology in the area wherever possible. The refined site layout as now proposed and submitted as part of the application is illustrated below at Alternative 3.



Alternative 3: Final Scheme Submitted to An Bord Pleanála

As noted above, following the receipt of detailed feedback from An Board Pleanála during the course of the pre-application meeting, and following receipt of the opinion of the Board (as well as Meath County Council), which advised on further consideration relating to aspects of the proposed development, the applicant and design team have undertaken a number of significant changes to the development proposal which is reflected within the final submission now set out.

Further consultations with the Planning Authority were undertaken during the course of this redesign, in order to ensure that any concerns of the Planning Authority were addressed in the final design.

Responses to each of these items have been provided as part of this final application pack, and the scheme has been updated and improved where necessary as a result.

As noted within the development description sections of this chapter, the scheme now comprises a slightly greater overall quantum of residential development than previously submitted at pre-application stage, incorporates the full extent of the roads infrastructure in the eastern segment of the site and along Colpe Road as necessary to provide the appropriate road, cycle and pedestrian network. The proposed also include the full extent of the applicant’s land ownership in the north east corner of the site adjacent to the school for completeness and to facilitate a connection through the site to this location.

Significantly, the site has been extended to the west and south, branching across the Dublin-Belfast railway line to enable a safe pedestrian and cycle link to the residential development at Grangerath. This will allow convenient access to a range of local facilities, including convenience retail, leisure and comparison retail at Southgate Shopping Centre approximately 650 metres west. It is considered that this change to the scheme represents a significant improvement in the likely environmental impact of the scheme in terms of material

assets and human health, as the new route will allow greater use of sustainable transport modes and discourage the use of private cars. This feature will however increase the visual impact of the scheme on the adjoining residential area to a degree, however this impact is considered to be offset by significant gains in accessibility, and potential improvements in the use of sustainable transport modes in the area to access schools and other amenities via this new route. As with the previous iterations of the scheme, the final layout seeks to incorporate and retain existing hedge rows and trees where possible.

The provision of this pedestrian and cycle link will contribute to the successful integration of the strategically located site with the adjoining established residential development at Grangerath and also enable a link to the future route to Drogheda train station.

The final scheme now also provides primary SUDS features proposed for the management of surface water run off from the site including swales, bio-retention areas and permeable paving which operate under normal rainfall events. These encourage groundwater recharge as well as settlement of coarse silts with plants in-water to promote settlement. Detention basins are used only between a 1 in 30 and 1 in 100 year return period representing extreme rainfall events. These delay surface water flows and promote surface water loss to natural ground through infiltration.

The drainage strategy for the development is divided into 3 no. drainage areas as noted within the Infrastructure Design Report, utilising existing surface water piping to the south west adjacent to the railway line, as well as the existing ditch system in the north east corner of the lands adjacent to the school with a surface water outfall proposed in a westerly direction to meet the Stameen River via Mill Road. Water infrastructure upgrades are included on Mill Road to facilitate this. A third outfall in the form of a ditch exists to the south east of the recently permitted commercial development, with a new surface water drainage network proposed including a new culvert. The proposals are in accordance with the GSDS and the content of the Meath County Development Plan.

The proposals now include an extended red line site boundary which includes all roads and access infrastructure incorporating the new link street and the improvements to Colpe Road, to include enhanced pedestrian and cyclist facilities. This builds on and supersedes the infrastructure previously permitted under LB180260, which is partially implemented. This has extended the site to c. 13.44 hectares.

The enlarged boundary ensures that the new road network is in compliance with the principles of DMURS as detailed further in accompanying Traffic & Transportation Impact and DMURS compliance statement prepared by DBFL Consulting Engineers – this will improve road safety *vis a vis* previous iterations of the proposal. In addition to this, the proposed development will implement a pedestrian route through the site to connect the school at the eastern boundary to the new pedestrian and cycle bridge spanning the Dublin-Belfast railway line and enhancing connectivity with Grangerath to the west. This will also provide a link to the future route along the railway line to Drogheda train station, ensuring integration with the wider area. An area totalling 1.35 ha is provided for public open space in the form of a linear park, with an extensive landscaping scheme throughout the scheme to ensure a positive impact upon biodiversity on site.

In summary, the design of the proposed development takes into account all environmental effects raised with respect to previous design alternatives and within the Opinion of both the Board and Meath County Council, and provides for a development that has been optimised to amplify positive environmental effects whilst reducing negative environmental impacts wherever possible. The final proposed scheme also responds to the characteristics and constraints of the subject site *vis a vis* the previous iterations of the scheme and the alternative layouts considered. The final scheme introduces a more effective mix of building heights and types, thereby allowing for a more efficient use of natural resources including land.

Effect	Option 1	Option 2	Option 3 – Final Scheme
Impact on Identified Archaeology	Orange	Orange	Green
Connectivity (Material Assets)	Orange	Orange	Green
Retention of Hedgerows in open spaces (Biodiversity)	Green	Green	Green
Pedestrian and cycle accessibility (Population and Human Health)	Orange	Orange	Green
Visual Impact on Adjoining Areas (Landscape and Visual Impact) (note introduction of bridge in final scheme)	Green	Green	Orange
Incorporation of SUDS (Water and Material Assets)	Orange	Green	Green

Table 2.1: Comparison of Environmental Effects (note – qualitative comparison provided in the preceding text) – Orange indicates increased impact, green indicates reduced / improved impact.

2.5.4 Description of Alternative Processes and Technologies

This is not considered relevant to this EIAR having regard to the nature of the proposed development.

2.6 CHARACTERISTICS OF THE PROJECT

The final proposed development consists in brief of the following, as set out within the public notices:

“
The proposed development consists of a residential development comprising 357 no. residential units, a childcare facility and associated outdoor play area, road infrastructure, a pedestrian bridge over the railway line and associated pathways, all associated open space, cycle and pedestrian infrastructure, services and all other associated development on a site of c. 13.44 hectares.

The 357 no. residential units proposed consist of 169 no. houses, 52 no. duplex apartments and 136 no. apartments.

The 169 no. houses will consist of the following:

- *104 no. 3 bedroom units*
- *65 no. 4 bedroom units*

The 136 no. apartment units will consist of the following:

- *58 no. 1 bedroom units*
- *78no. 2 bedroom units*

The 52 no. duplex units will consist of the following:

- *52 no. 3 bedroom units*

The proposed childcare facility is a two storey building with a GFA of 439 sq.m. The proposed houses are 2/3 storeys in height and the duplex/apartment blocks are 3 - 6 storeys in height.

The development includes road infrastructure comprising of a link street approximately 652m in length (including changes to the previously permitted road infrastructure under Reg. Ref.: LB/180620), including bus stops, 1 no. roundabout, pedestrian crossings and c. 246m long connection of the link street to the east to

facilitate a connection to the existing school on Mill Road (Gaelscoil an Bhradáin Feasa). The road infrastructure also includes the realignment of a section of Colpe Road and the realignment of the southern section of Mill Road, and includes proposed cycle lanes/paths, footpaths, grass verge, and the provision of a footpath and cyclepath / cycle lane on Colpe Road to tie-in with the existing shared footpath / cyclepath, to the south-west of the railway line.

The proposed new pedestrian bridge will cross the existing Dublin to Belfast railway line and will link the proposed SHD development to the existing Grange Rath housing development to the south-west.

The development includes associated site and infrastructural works including all associated road infrastructure, foul and surface / storm water drainage (including upgrading of water services on Mill Road), surface water management including attenuation and storage features, a pumping station, watermains and utilities, 592 no. car parking spaces, 532 no. cycle parking spaces, public open space including a linear park, bin and bike stores, 2 no. substations, landscaping consisting of new tree planting, hedges, berms and grass planting, boundary treatments, public lighting, and all associated site and infrastructural works.

The application contains a statement setting out how the proposal will be consistent with the objectives of the Meath County Development Plan 2013-2019 and the Local Area Plan for the Southern Environs of Drogheda 2009-2015.

The application contains a statement indicating why permission should be granted for the proposed development, having regard to a consideration specified in section 37(2)(b) of the Planning and Development Act, 2000, as amended, notwithstanding that the proposed development materially contravenes a relevant development plan or local area plan other than in relation to the zoning of the land.

An Environmental Impact Assessment Report and a Natura Impact Assessment have been prepared in respect of the proposed development and accompany this application.”

The SHD application to An Bord Pleanála is accompanied by detailed drawings and a detailed design statement, prepared by DDA Architects, which provides a rationale for the design of the proposed scheme and the dwelling types proposed. Additional justification is provided within the statements of response prepared by the design team, to provide a comprehensive response in accordance with the opinion of the Board on the pre-application consultation for the proposed development. The Statement of Response prepared by John Spain Associates provides a summary of the overall response provided to the issues raised by the Board, and by the Planning Authority during the course of the SHD pre-application consultation process, and refers the reader to the relevant documentation within the planning application pack.

Density

The scheme proposes a net density of c. 39 units to the hectare, based on a net development area of 9.07 ha (gross area c. 13.44ha) calculated in accordance with the guidance set down in the Sustainable Residential Development Guidelines. Please refer to the Design Statement and Drawing No. 19-001-P-1.016 – Site Density which illustrates how the net site area and net density figure has been calculated.

The proposed residential density accords with the outer-suburban greenfield nature of the subject site, which is situated in a Regional Growth Centre in the context of the RSES. The Guidelines for Sustainable Residential Development in Urban Areas (2009) provide guidance on the appropriate level of residential density for such sites, with a net residential density of 35-50 units per hectare recommended, and not less than 30 units per hectare.

Plot Ratio and Site Coverage

The proposed development has an overall plot ratio of 0.28 and site coverage of 14.2%. The above are considered appropriate for the site and result in an appropriate form of development

Unit Mix

As noted above and within the public notices, the 357 no. residential units proposed consist of 169 no. houses (two storey), 52 no. duplex units (three storey), and 136 no. apartments (three - six storey).

The 169 no. houses will consist of the following:

- 104 no. 3 bedroom units
- 65 no. 4 bedroom units

The 136 no. apartment units will consist of the following:

- 58 no. 1 bedroom units
- 78no. 2 bedroom units

The 52 no. duplex units will consist of the following:

- 52 no. 3 bedroom units

The following table provides a detailed breakdown of the broad range of housing types proposed and sets out the percentage of the overall unit number which each housing type comprises.

Breakdown of Unit Mix – Absolute Figures and Percentage			
HOUSES			
Unit Type	Total No.	Percentage of Houses (169 Total) - Rounded	Percentage of Overall Unit No.
3 – Bedroom	115	68%	32.2%
4 – Bedroom	61	32%	17%
DUPLEX UNITS			
Unit Type	Total No.	Percentage of Duplex Units (56 Total) - Rounded	Percentage of Overall Unit No.
2 – Bedroom	4	7%	1.1%
3 – Bedroom	52	93%	14.5%
APARTMENTS			
Unit Type	Total No.	Percentage of Apartments (132 Total) - Rounded	Percentage of Overall Unit No. – Rounded
1 – Bedroom	58	44%	16.2%
2 – Bedroom	74	56%	20.7%

Building Heights

The proposed houses are 2 storeys in height and the 7 no. duplex/apartment blocks are 3 - 6 storeys in height. The childcare facility is 2 storeys in height.

Proposed heights are in accordance with the guidance set out within the 2018 Building Height Guidelines, which espouse the provision of a mix of building heights within new suburban / outer urban schemes, in order to achieve sustainable densities and to avoid the monotony of repetitive low-rise traditional housing estates. The distribution and variety of heights within the scheme has been carefully considered in order to optimise the legibility of the scheme, and to provide an appropriate urban edge onto the link street which runs through the proposed development from north to south.

Childcare Facility

The SHD scheme provides for a childcare facility at an appropriate location, adjacent to areas of open space and highly accessible from within the proposed development.

The proposed childcare facility is a two storey building with a GFA of 439 sq.m located to the east of the Link street. The upper storey contains apartments which provide passive surveillance of the open space to the east.

The inclusion of the childcare facility responds appropriately to the projected need arising within the proposed development and is located at a central location in close proximity to the existing school adjacent to the east of the site.

Open Space Provision

Public and Communal Open Space

The proposed development includes significant areas of public open space including a linear park which has been designed to integrate into the overall masterplan area and provide a green corridor through the wider area. The total net open space to be provided within the development is 1.42 hectares. This equates to 15.7% of the site area, in accordance with the standard of 15% public open space provision set out within the Meath County Development Plan.

An additional area comprising 0.52 hectares of open space will be provided in the northeast of the subject site, although as this element of open space is not relied upon to achieve the required open space quantum for the scheme (as it is provided on lands zoned 'White Lands' within the Development Plan. The total gross open space area provided is 1.94 hectares if this additional open space is taken into account, or 21.43% of the overall site area.

The public open space is located in and around residential areas providing opportunities for informal recreation and play. There is a clear hierarchy of public open space incorporated into the overall landscape strategy, thus allowing for a diverse range of landscape and open space experience.

It includes the centrally located Linear Park, rectangular public open space to the west, and two smaller open spaces close to the apartment blocks. The Linear Park provides a green corridor through the site and the wider masterplan lands, providing a movement and recreation function for the wider area, facilitating future connections for both pedestrians and cyclists.

The indicative masterplan submitted along with this application illustrates how the areas of open space included in the current development proposal can link with surrounding landholdings to provide for a coherent network of open spaces and recreational areas for this new residential community. The accompanying Landscape Design Report, Drawings and Sections as well as Masterplan prepared by Dermot Foley Landscape Architects provides greater detail in this respect.

Private Open Space

The houses proposed within the scheme provide for private open space in the form of useable outdoor back gardens, private balconies or terraces. Private open space is provided in accordance with the standards set out within the Meath County Development Plan of 55 sq.m for two-bedroom houses, 60 sq.m for three-bedroom houses, and 75 sq.m for four-bedroom houses. Many of the proposed housing units significantly exceed these Development Plan minimums for private open space provision, with generous rear gardens provided wherever possible. Separation distances between houses are in accordance with Development Plan standards which requires a separation of 22 metres between first floor windows to the rear of dwellings.

The apartment and duplex units provide for private open space which complies with or exceeds the standards set out within the 2018 Apartment Guidelines, which set down a requirement of 5 sq.m for one-bedroom apartments, 6 sq.m for two-bedroom, three-person apartments and 7 sq.m for two-bedroom, four-person apartments. The compliance of the scheme with this standard is demonstrated within the Housing Quality Assessment prepared by DDA Architects.

Car Parking

The proposed development provides for 592 car parking spaces and 532 cycle parking spaces, which have been carefully integrated into the design of the scheme, to avoid any feeling of car-domination. Please refer to the DDA Design Statement document for further details of the measures taken to integrate the parking within the development into the layout of the scheme, in accordance with the principles of the Urban Design Manual.

Phasing of Development

Phase 1

It is intended that the proposed development will be delivered in three phases. The phasing proposals are set out within the DDA Design Statement which is submitted herewith.

Phase 1 will comprise the delivery of the main road infrastructure, for the proposed development (i.e. the link street), the southern portion of the linear park, and 116 no. housing units including houses and apartments. The creche in the eastern portion of the site will also be delivered as part of the first phase of development (including the access road to the creche).

The first phase of development also includes the proposed bridge over the adjacent rail line. It is intended that this important piece of infrastructure will be completed prior to the occupation of units in Phase 2 of the development. This will allow for the completion of residential units within Phase 1 along the pedestrian desire line from the bridge across the subject site, and their completion in advance of the bridge becoming operational – this is considered to be important, as it will allow for passive surveillance and security on the new route through the site which the bridge will create. This new bridge will also provide for significant benefits for the residents of the existing Grangerath residential area, who will benefit from access to the significant areas of amenity space within the proposed development, and from ease of access to the two schools existing and permitted beside the SHD site.

The first phase of development will also include 7 no. of the 36 no. proposed Part V units.

Phase 2

Phase 2 of the proposed development comprises the delivery of the remaining area of the development which is located to the west of the link street. This second phase of development will provide a further 129 residential units and will also complete the main linear park within the scheme and the western open space, to the north of the proposed new bridge.

The second phase of development will include a mix of houses, apartments, and duplex units which also includes 14 Part V units.

Phase 3

Phase 3 will see the completion of the remaining residential units within the scheme (113 units), including the three apartment and duplex buildings which define the eastern side of the link street within the scheme. This final phase of development will see the completion of the remaining areas of open space within the scheme, to the east of the link street. This phase will also provide a mix of houses, apartments, and duplex units. The final phase of development includes the remaining 15 Part V units.

Character Areas

The design of the proposed development is arranged as a series of 3 no. distinct character areas, which are defined by variations in unit types and design, road layout and hierarchy and related open spaces.

Character Area 1 includes the western side of the development site and is identifiable by the linear park running through the scheme. Character area 2 is the central area of the development, encompassing the larger apartment buildings either side of the link street. Character Area 3 includes the houses to the east of the development, including the creche and a secondary site entrance. The extent of the 3 no. Character Areas are illustrated by Figure 2.5 below.



Figure 2.5: Proposed Character Areas within the Proposed Development

The design intention strategy is based around the objective to create a series of higher density buildings addressing the link street. These buildings create an enlivened and animated street elevation and protected zones for lower scale housing.

There is a consistent architectural style throughout the development, and a simple contemporary material palette. There is a clear legible cellular layout throughout. Open spaces are distributed throughout the scheme breaking up housing cells. These open spaces also assist in wayfinding throughout the development.

The DDA Design Statement document submitted herewith provides details of the character areas proposed in terms of their varying architectural design, layout and materiality.

Transport and Accessibility

The primary road infrastructure/link street serving the proposed development has been permitted under Reg Ref: LB/180620 and is partially implemented. The permitted temporary school is also accessed from this link street. Notwithstanding this previous extant permission, the current SHD application includes the link street within the red line boundary, and proposes an alternate layout which removes two roundabouts from the permitted link street layout and replaces these with junction arrangements in response to comments from the Board made during the course of the pre-application consultations.

The SHD application takes in the link street / link road to provide access to the subject site. A roadway on this alignment was previously approved under Ref. Ref.: LB 180620, along with a significant commercial development. The roadway is partially implemented at its southern end. The partially implemented works are not affected by the altered road layout now proposed.

The SHD application takes in the footprint of this permitted roadway, and proposes an alternate road layout which will supersede the previously permitted road layout, thereby addressing points raised by the Board in the pre-application opinion. The Board requested that the design of this road infrastructure be considered further, to ensure compliance with DMURS.

In this context, the design team have undertaken a detailed review of the design of the link road / link street along its entire extent. In this regard, the design team has had particular regard to Section 3.2.2 of DMURS, which relates to context-based design of roads and streets. Section 3.2.2 of DMURS states inter alia:

“Urban roads and streets can traverse many areas with very different characteristics, such as industrial areas, residential areas, mixed use neighbourhoods and city, town and village centres. This clearly requires different design solutions within each of these different contexts”.

Based on the review of the link road undertaken by the project design team, it is recognised that the character and context of the area which the link road traverses changes as it enters the proposed housing development. In recognition of this, the revised design incorporates pedestrian crossings and omits roundabouts which were included in the previously permitted link road. The revised design for this roadway is context sensitive and site-specific and will ensure an appropriate sense of place within the proposed development, where the link street will be provided with a strongly defined urban edge and sense of enclosure by the higher elements of development along this important route.

Pedestrian crossings have been provided at intervals to allow for permeability across the site, considering likely desire lines so as to maximise the safety of the design for pedestrians.

The southern end of the link street (the part which is currently being implemented under the extant permission) is not subject to any change in the current proposal. There will therefore be no variance with any of the works which have been undertaken to date on the permitted road *vis a vis* the current proposal to address the Board's concerns. The element of the roadway currently being implemented will allow for access to the site of the permitted office building under Reg. Ref.: LB 180620, and will also provide for the linkage to the new road which is provided for in the permission for the temporary school under Ref. Ref.: LB190739.

The new roadway to be provided will facilitate a connection to the existing school on Mill Road (Gaelscoil an Bhradáin Feasa). The link street has been designed in accordance with the Design Manual for Urban Roads and Streets (DMURS).

Drogheda benefits from national, regional and local bus services as provided by private and public sector operators. Bus Eireann provides a number of services linking Drogheda with Dundalk to the north and Dublin to the south where connections can be made to further regional / national services and destinations across the country. The Bus Eireann services are supplemented by a number of private operators. A number of bus services serve the R132 with stops provided in the vicinity of Colpe Cross to the south west of the site.

The closest current bus services to the site is offered by the Matthews bus service which runs to and from Dublin through Laytown and Bettystown with bus stops at Donacarnev church (approx. 550m from the proposed residential site), Grange Rath and Southgate Shopping Centre.

The Southern Drogheda Environs Local Area Plan highlights the proposal to implement a new bus route through the lands, linking the site to Drogheda Town Centre via Drogheda MacBride Train Station and Drogheda Bus Station.

This development proposes to provide two new bus stops (in both directions) within 50-100 metres of the southern boundary of the development site, along the proposed link street, as illustrated below in the short-term linkages plan.

The final development design also provides for a key new pedestrian and cycle link across the adjoining rail line, linking with the existing residential areas to the south / west and onward to the Southgate Centre. This is an important feature of the proposed development which represents a significant planning gain, both for the proposed development and for existing areas to the southwest, which will benefit from a major increase in accessibility to the existing and planned schools adjacent to the SHD site.

MacBride Station is accessed via Dublin Road (R132) and is situated approximately 2km from the subject lands. There are currently 32 services from Dublin to Drogheda, 10 of which extend northbound to Dundalk per weekday and 33 services travelling southbound to Dublin from MacBride Station primarily serving commuter travel requirements. MacBride Station also serves the Dublin – Dundalk services with 7 trains stopping at Drogheda in each direction per weekday.

Future Connections

The masterplan demonstrates how the overall Mill Road/Marsh Road area will be integrated into the built form of Drogheda and provides for connectivity and linkages to the urban centre of Drogheda and key social and community facilities in the surrounding area, including the Southgate Centre and a number of schools in the area, and also to important focal points within the masterplan area such as the future neighbourhood centre north of the central park (amenity space).

Landscaping and Open Space

The proposed development also includes significant areas of public open space including a linear park which has been designed to integrate into the overall masterplan area and provide a green corridor through the wider area. The total net open space to be provided within the development is 1.42 hectares. This equates to 15.7% of the site area, in accordance with the standard of 15% public open space provision set out within the Meath County Development Plan.

An additional area comprising 0.52 hectares of open space will be provided in the northeast of the subject site, although as this element of open space is not relied upon to achieve the required open space quantum for the scheme (as it is provided on lands zoned 'White Lands' within the Development Plan. The total gross open space area provided is 1.94 hectares if this additional open space is taken into account, or 21.43% of the overall site area.

The public open space is located in and around residential areas providing opportunities for informal recreation and play. There is a clear hierarchy of public open space incorporated into the overall landscape strategy, thus allowing for a diverse range of landscape and open space experience.

It includes the centrally located Linear Park, rectangular public open space to the west, and two smaller open spaces close to the apartment blocks. The Linear Park provides a green corridor through the site and the wider masterplan lands, providing a movement and recreation function for the wider area, facilitating future connections for both pedestrians and cyclists. The indicative masterplan submitted along with this application illustrates how the areas of open space included in the current development proposal can link with surrounding landholdings to provide for a coherent network of open spaces and recreational areas for this new quarter.

The Linear Park is centrally located to ensure retention of the existing hedgerow as much as possible. It is overlooked from proposed houses to the east and west. Its central location ensures that the park is activated and used to its maximum potential.

2.7 THE EXISTENCE OF THE PROJECT

2.7.1 Introduction

The purpose of this section is to provide a description of the proposed development and consider all relevant aspects of the project life cycle both during construction and post construction (and decommissioning if applicable). These include the following:

- Construction Stage (Land Use Requirements, Construction Activity & Significant Effects).
- Operation Stage (Processes, Activities, Materials Used).
- Changes to the Project.
- Secondary and Off-Site Developments.

2.7.2 Description of Construction Stage

This section of the EIAR summarises the construction and phasing of the proposed development and summarises the measures to be taken to ensure that the impact of construction activity is minimised. The Construction and Environment Management Plan and Construction and Operational Waste Management Plan, which are included as standalone reports with this application, should be referred to for a more detailed assessment of the construction, waste and indicative phasing proposals for this development.

Construction Stage

As noted previously, the construction of this development is likely to take place in two phases of development as described below:

- Phase 0 – Access, site clearance
- Phase 1 – The first phase of development will comprise the delivery of the main road infrastructure, for the proposed development (i.e. the link street), the southern portion of the linear park, and 134 no. housing units including houses and apartments, with 1 no. gateway apartment buildings included. The creche in the eastern portion of the site will also be delivered as part of the first phase of development (including the access road to the creche). The first phase of development also includes the proposed bridge over the adjacent rail line.
- Phase 2 - The second phase of development comprises the delivery of the remaining area of the development which is located to the west of the link street. This second phase of development will provide a further 110 residential units comprising a mix of houses and apartments and will also complete the main linear park within the scheme and the western open space, to the north of the proposed new bridge.
- Phase 3 - The final phase of development will see the completion of the remaining residential units within the scheme (113 units), including the three apartment and duplex buildings which define the eastern side of the link street within the scheme. This final phase of development will see the completion of the remaining areas of open space within the scheme, to the east of the link street.

The Contractor will be required to prepare a detailed CMP, including traffic management, on foot of these phasing proposals.

Construction Activities

There are a number of construction activities involved in a project such as this. The activities (independent of phasing) can be divided into five general categories:

- Excavation
This includes site clearing and earthworks – soil / rock removal – required to prepare the site for the foundations and residential floorspace above.
- Structure
Structure includes the foundations and the physical frame of the residential units and childcare facility. The foundations will be a mix of concrete pile and cap and ground blocks.
- Enclosures
The enclosures for the buildings will be formed from brick, block work, timber, and glass, with slate roofs, all with the required levels of insulation and waterproof membranes.
- Services
The requisite services will be provided including drainage and lightning.
- Landscaping
The landscaping works include some hard landscaping, roads, footpaths, cycle-paths, bed and tree planting, and significant open spaces. In addition, there are a number of existing trees and areas of woodland to be protected on site and incorporated into the new scheme.

Geotechnical Investigation

The ground conditions are described in further detail in the Land and Soils Chapter of the EIAR, which has been prepared by DBFL Consulting Engineers.

Predicted Impact of the Construction Stage

There are a number of aspects that will be impacted upon due to the construction of this development. This list is non-exhaustive but covers the major issues to be considered in the assessment of possible impacts of the development:

- Construction methods – duration and phasing.
- Construction traffic, parking and site working hours (see standalone TTA).
- Health and Safety issues.
- Noise & Vibration due to construction work.
- Air quality (principally dust)
- Construction waste management (see separate standalone report)

Construction Methods – Phasing of development

The construction methodology that will be utilised on the site will have three main attributes to minimise the impact of the construction phase.

- Phasing of construction
- Efficiency
- Minimisation of waste generated

Construction methods will use techniques that afford safe, efficient, and cost-effective methods of working. In order to minimise the traffic impact associated with the removal of material from the site and the construction phase in general, the Contractor will prepare and implement a Construction Traffic Management Plan.

Construction Traffic, Parking and Site Working Hours

The Construction Management Plan and TTA address these issues in greater detail. It advises that the works associated with the new development will develop additional traffic on the public road network associated with the removal of excavated material etc. and the delivery of new materials, concrete trucks etc.

The vehicles associated with the construction activities are as follows:

- Excavators;
- Dump trucks;
- Concrete delivery trucks;
- Concrete pumps;
- Mobile cranes; and
- Mobile hoists.

It is proposed that standard construction working hours will apply.

It will be necessary for the appointed contractor to prepare a detailed construction traffic management plan to ensure the smooth operation of the local road network during the course of the construction project. It will be necessary to agree this construction traffic plan with Meath County Council in advance of the project. The management of this plan will also need to be reviewed throughout the duration of the project.

Health & Safety Issues

The development will comply with all Health & Safety Regulations during the construction of the project. Where possible potential risks will be omitted from the design so that the impact on the construction phase will be reduced.

Noise & Vibration due to Construction Work

The potential impacts associated with noise and vibration due to construction work, are addressed in Chapter 10 Noise & Vibration.

Air Quality

The potential impacts associated with air quality due to construction work are addressed in Chapter 9 Air Quality and Climate.

Construction Waste Management

A standalone Construction & Operational Phase Waste Management Plan for the proposed development is included with this application. The purpose of this report is to ensure the best practice is followed in terms of waste and environmental management during the construction phase of the proposed development, and to ensure adverse impacts on the receiving environment – including local residents - are minimised.

2.7.3 Description of the Operation Stage of the Project

Pursuant to the EIA Directive an EIAR document is required to set out a description of the project processes, activities, materials and natural resources utilised; and the activities, materials and natural resources and the effects, residues and emissions anticipated by the operation of the project.

The proposed development is a residential development at Colpe West, including a childcare facility, associated infrastructural works, and areas of open space. The primary direct significant environmental effects will arise during the construction stage. As a result, post-construction, the operation of the proposed development is therefore relatively benign and not likely to give rise to any significant additional impacts in terms of activities, materials or natural resources used or effects, residues or emissions which are likely to have a significant impact on population and human health, biodiversity, soils, water, air, climate, or landscape.

The primary likely and significant environmental impacts of the operation of the proposed development are fully addressed in the EIAR document; and relate to Population and Human Health, Landscape and Visual Impact and Noise and Air impacts associated with the traffic generated.

The proposed development also has the potential for cumulative, secondary and indirect impacts particularly with respect to such topics as traffic – which in many instances – are often difficult to quantify due to complex inter-relationships. Nonetheless, each chapter within this EIAR addresses the cumulative, secondary and indirect impacts which the development may have. On the basis of the assessment carried out as part of this EIAR, it is considered that all cumulative secondary and indirect impacts are unlikely to be significant; and where appropriate, have been addressed in the content of this EIAR document.

2.7.4 Description of Changes to the Project

Draft Guidelines on the information to be contained in environmental impact assessment reports were published by the EPA in August 2017.

The draft guidelines state in relation to change:

'Very few projects remain unaltered throughout their existence. Success may bring growth; technology or market forces may cause processes or activities to alter. All projects change and- like living entities - will someday cease to function. The lifecycles of some types of projects, such as quarries, are finite and predictable. Such projects often consider their closure and decommissioning in detail from the outset, while for most projects a general indication of the nature of possible future changes may suffice. While the examination of the potential consequences of change (such as growth) does not imply permission for such growth, its identification and consideration can be an important factor in the determination of the application.'

Descriptions of changes may cover:

- *Growth*
- *Decommissioning*
- *Other Changes*'.

As per the draft EPA guidelines and in the interests of proper planning and sustainable development it is important to consider the potential future growth and longer-term expansion of a proposed development in order to ensure that the geographical area in the vicinity of the proposed development has the assimilative carrying capacity to accommodate future development.

Given the proposed site layout extent and the location of the proposed development relative to the wider area, it is reasonable to perceive additional development coming forward in future on lands to the north and south of the red line boundary of the proposals.

Any adjacent undeveloped lands will be the subject of separate planning applications in the future, where they are identified as being suitable for development, and where the provision of the requisite physical and other infrastructure is available.

The overall potential environmental impacts of this strategically located Development Area will have been assessed by the Planning Authority prior to their inclusion in the Drogheda Southern Environs Local Area Plan. In this respect, the lands are considered suitable and possess the capacity for the development. This EIAR investigates the potential environmental impact of the development, which is considered to be in accordance with the principles and objectives of the Meath CDP, the Drogheda Southern Environs LAP and the overall development strategy for the area and is therefore appropriate in its current format.

2.7.5 Description of Secondary and Off-Site Developments

No significant secondary enabling development is deemed necessary to facilitate the proposed development. The planning application includes details of the necessary road works, which are required to facilitate this development and includes full details pertaining to water infrastructure upgrades to facilitate the proposals, which are included as part of the development itself. These works are assessed within this Environmental Impact Assessment Report.

2.8 RELATED DEVELOPMENT AND CUMULATIVE IMPACTS

Each Chapter of the EIAR includes a cumulative impact assessment of the proposed development with other existing, permitted, and planned projects in the immediate area. The potential cumulative impacts primarily relate to traffic, dust, noise and other nuisances from the construction of the development, with other planned or existing projects, and each of the following EIAR chapters has regard to these in the assessment and mitigation measures proposed.

As such, with the necessary mitigation for each environmental aspect, it is anticipated that the potential cumulative impact of the proposed development in conjunction with the other planned developments will be minimal.

2.9 MITIGATION MEASURES

PD&AE CONST 1: It will be necessary for the appointed contractor to prepare and implement a construction management plan (including traffic management) to reduce the impacts of the construction phase on local residents and ensure the local road network is not adversely affected during the course of the construction project.

PD&AE CONST 2: The appointed contractor should prepare a Construction and Operational Waste Management Plan for the proposed development as part of their contractual responsibilities. The Waste Management Plan should meet the requirements of the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects.