

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 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 application site is located to the north of the R147 / Dublin Road and to the south-east of Dunshaughlin Town Centre. Dunshaughlin is located 29 kilometres from Dublin City Centre on the R147 / M3 and 24 kilometres from Navan town. Dunshaughlin, a moderate sustainable growth town, is located in the Hinterland Area of the GDA just outside the ‘Metropolitan’ boundary as identified in the RPG’s and the Draft RSES and located on the M3/N3 Economic / Transport Corridor, to the north west of Blanchardstown Town Centre and the Dublin Enterprise Zone.

The Electoral Division of Dunshaughlin had a population of 5,840 in 2016. The immediate settlement of Dunshaughlin had a population of 4,035 persons in the most recent 2016 census.

Dunshaughlin contains a strong provision of public amenities, including a library, Meath County Council civic offices, a large community and sports centre, as well as a health centre. Dunshaughlin has two primary schools, St. Seachnall’s National School and Gaelscoil na Ríthe, and a secondary school, Dunshaughlin Community College, run by Louth and Meath Education and Training Board.

A school / educational campus is proposed to the southwest of the subject site, on lands owned by the applicant to the north of the R147, following identification of these lands as suitable location for a future primary and secondary school for the town by the Department of Education and Skills. Draft Heads of Terms have been exchanged between parties. A planned sports ground for the town is also proposed on lands to the northeast of the subject site, which are under the control of Meath County Council.

Overall Landholding

Our client’s lands are situated to the south east of Dunshaughlin town centre. They are well served by a number of bus routes, which connect Navan and Cavan to Dublin City Centre and Belfield (UCD). The 109 and 109B bus routes provide frequent services (approximately every 20-30 mins on weekdays) to Busaras in Dublin City Centre. Proposed bus stops are provided to serve the subject lands on the Dublin Road and also on the proposed north-south link road on the eastern edge of the subject lands. The lands are approximately a 7-minute drive from M3 Parkway (PACE) Railway Station which provides direct links to Dublin City Centre and c. 15 minutes from Blanchardstown Town Centre where a new Bus Connects route to the City Centre is proposed.

A Quality Bus Corridor has been provided along the R147 on the approach to Dunshaughlin Town from both the Dublin and Navan sides. This allows buses and other public transport modes to pass through the Town quickly during peak hours. The existing and planned public transport services will ensure a modal shift toward bus transport and ensure that buses continue to serve Dunshaughlin.

Our client’s overall landholding in this location is currently subject to residential (pre and post 2019), employment and open space zonings. The applicant is also investigating opportunities to bring forward employment development on the immediately adjoining lands to the east within their control, which is promoted by MCC’s Economic and Development Strategy 2014-2022.

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



Figure 2.2: Approximate extent of the subject site of the proposed SHD development (Google Maps)



The Subject Site

The application site is primarily zoned for residential use and is identified as both pre and post 2019 lands in the current land use zoning map. The application site forms part of a larger land holding, which is primarily zoned for residential, employment and open space uses, with an objective for a local distributor road traversing the lands in a north-south direction. A portion of the site is also zoned for open space.

The site at present comprises primarily of agricultural lands divided into a number of plots. The sites of the constructed / permitted Phase 1A (Reg. Ref.: DA/060537 as amended), Phase 1B (Reg. Ref. RA/170407) and Phase 1C (Reg. Ref. RA171416) developments are located to the south of the subject site.



Figure 2.3: Phase 1A and 1B developments under construction to the south of the SHD site

Lands adjacent to the subject site to the north accommodate a residential development (Coldrick's Pass / Kellett's Grove). Lands to the east and south are green-field in nature, while the site to the west comprises of Dunshaughlin Business Park, 'Maeldiun' residential estate and undeveloped lands now identified for a future school campus.

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 of 913 no. residential units, a neighbourhood centre, including 2 no. retail units, a café / restaurant unit, a primary healthcare / gym, a community facility and a childcare facility, all associated open space, a section of the Dunshaughlin Outer Relief Road, internal roads, cycle and pedestrian infrastructure, services and all other associated development on a site of c. 28.3 hectares.

The 913 no. residential units proposed consist of 505 no. houses (single, two, and three storey), 186 no. duplex units (three storey), and 222 no. apartments (four and five storey).

The 505 no. houses proposed consist of the following:

- 45 no. 2-bedroom houses
- 382 no. 3-bedroom houses (including 4 no. bungalows)
- 50 no. 4-bedroom houses (including 5 no. bungalows)
- 28 no. 4/5-bedroom houses (three storey)

The 186 no. duplex units consist of the following:

- 20 no. 1-bedroom duplex units
- 84 no. 2-bedroom duplex units
- 73 no. 3-bedroom duplex units
- 9 no. 4-bedroom duplex units

The 222 no. apartments consist of the following:

- 50 no. 1-bedroom apartments
- 151 no. 2-bedroom apartments
- 21 no. 3-bedroom apartments

The proposed neighbourhood centre facilities consist of a childcare facility with a GFA of 1,282 sq.m, a community facility with a GFA of 180 sq.m, 2 no. retail units with GFA of 1,000 sq.m and 190 sq.m, a café / restaurant unit with a GFA of 370 sq.m, and a primary healthcare / gym unit with a GFA of 1,040 sq.m.

The development includes the delivery of a section of the Dunshaughlin Outer Relief Road from the Phase 1 site boundary to the northern site boundary, including connections to adjacent lands, improvements to a section of the Outer Relief Road delivered with the Phase 1 development to the south, a bus bay and toucan crossing on the Dublin Road, all associated open space, boundary treatment, internal roads, cycle and pedestrian infrastructure, foul and surface water drainage, a pumping station, attenuation tanks, car and cycle parking, ESB substations, other services and all other associated development."

Section 2.6 (below) provides a more detailed description of the characteristics of the proposed development.

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 Dunshaughlin East, 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);
- 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 – Draft Regional Spatial & Economic Strategy (RSES), (2018),
- Regional Planning Guidelines for the Greater Dublin Area (2010 – 2022);

County

- Meath County Development Plan 2013-2019
- Dunshaughlin 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 is currently on hold pending the publication of the final Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly, which is due to be published in early 2019, following which Planning Authorities will be required to review or vary their plans to be consistent with 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 Dunshaughlin Local Area Plan provides further detail in respect of the ongoing and future development of the town, and sets out specific policies and objectives to guide its development.

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 Dunshaughlin, and accessible to the town centre.
- The need to consider the interaction of the development with existing adjacent residential 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.

- 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 route of a services wayleave across the subject site.
- Provision of landscape buffering between the development and employment uses to the northwest.
- 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.

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, neighbourhood centre facilities, associated open space and road and service infrastructure, on green-field 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 Dunshaughlin and the wider area. The suitability of the lands for development, i.e. located strategically for the sequential growth of Dunshaughlin, 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 for residential use under the County Development Plan 2013-2019. The portion of the site zoned for open spaces uses will be developed primarily as landscaped areas of open space and woodland areas / greenway which will also serve to buffer the proposed development from employment uses within the Dunshaughlin Business Park to the west / northwest.

As such consideration of alternative sites for the construction of houses and apartments proposed in this residential development proposal was not considered necessary.

During the design process for the proposed development several iterations of the site layout and alternative designs were considered. 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 have the environmental capacity to accommodate the proposed development without any significant risk of impact upon environmental sensitivities due to the site location.

2.5.3 Alternative Uses

In addition to residential use, there are other land uses which are permitted in principle on these lands. It is not considered that an alternative comprising one of the alternative uses would result in the best use of these lands, particularly having regard to the general acknowledged need for housing, and considering the proposed provision of neighbourhood centre facilities as an ancillary part of the scheme. The environs of the subject site are largely residential or greenfield in nature interspersed with some commercial uses to the west of the subject site. In this context, the proposal now the subject of this application comprises appropriate land uses in accordance with the proper planning and sustainable development of the area. The future development of the

adjacent employment zoned lands under the control of the applicant will further broaden the range of uses in the area, which include an emerging proposal for a future education campus on the lands to the 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.

Alternative 1: Masterplan Proposals for Previously Permitted Scheme Reg. Ref. DA/060537 as amended by Reg. Ref. DA130709

Planning permission was granted by Meath County Council in October 2007 under Reg. Ref. DA/060537. This application sought permission for the provision of 282 no. residential units representing the first phase of an overall masterplan for the lands. In addition, the proposal included the provision of a new distributor road connecting to the existing N3 road, total of 482 no. car parking spaces, boundary treatment, landscaping, provision of public open space (240sq. m) all site works and infrastructure on a site of c. 17 ha. at "The Willows", Dunshaughlin, Co. Meath. The nature and quantum of development was amended at further information stage and by condition.

An extension of duration for the above permission (Reg. Ref. DA/060537) was granted by Meath County Council in September 2012. The permission was extended until the 11th of October 2017.

Planning permission was granted on 20th February 2014 to amend Condition No. 3 of the parent planning permission Reg. Ref.: DA/60537, to limit the liability for the main distributor/ outer relief road to the extent of planning permissions granted on the land in the ownership of G, J and R Stanley and also to change the entrance location for the first 87 houses (Phase 1) to the residential development off the main distributor road to that as shown within the application.

The application was the subject of a FI request. The proposals provided for a temporary access which was to be utilised for Phase 1A and subsequently removed when the proposed permanent access to Phase 1B is delivered (this has recently been constructed under the Phase 1B permission).

The conditions attached to this permission included the following:

Condition 5: *The access to this Phase 1 shall be temporary in nature and shall be removed prior to any additional residential units in the remainder of the scheme being occupied.*

Condition 6: *No further residential units shall be occupied until such time that the remainder of the distributor road (coloured orange and green) on the applicants site layout plan Drawing No. 1303-PD-03C has been constructed to an appropriate distributor road standard, which shall be agreed in writing with the Planning Authority.*

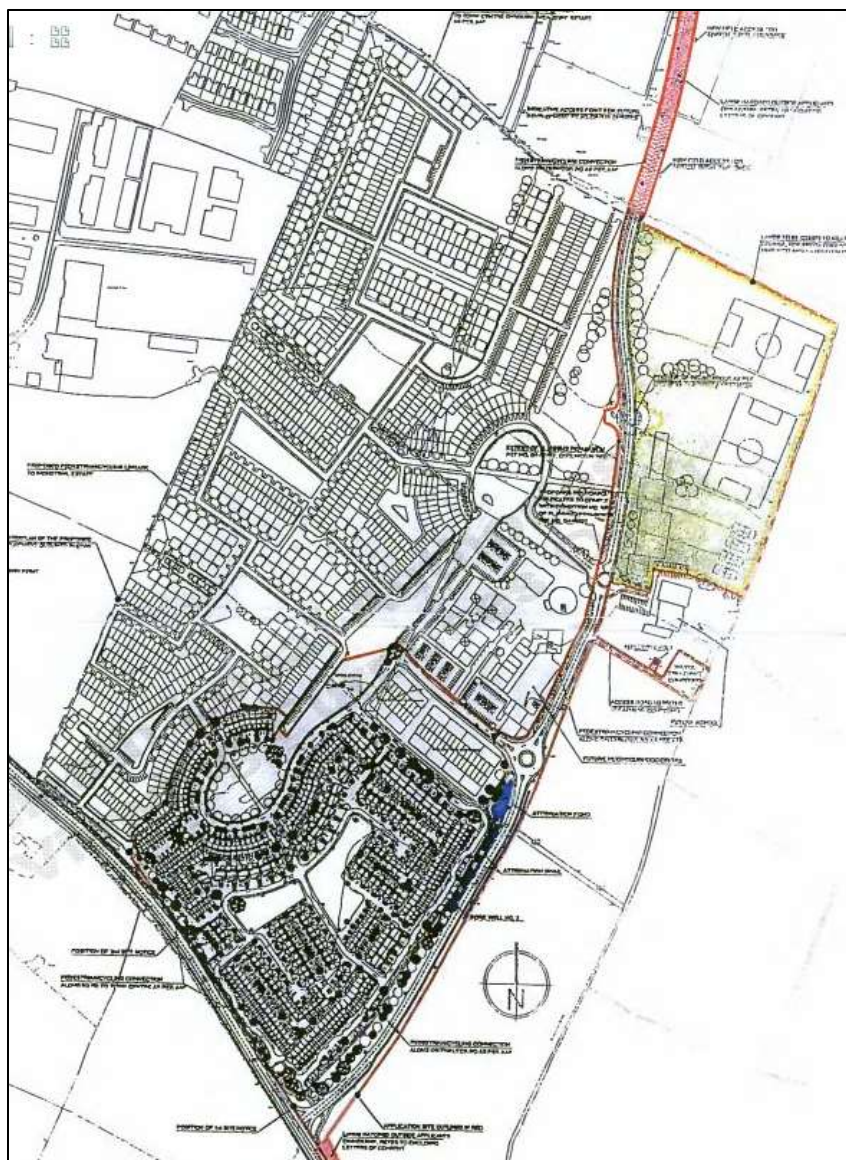


Figure 2.4: Site layout plan showing former masterplan proposals for the overall landholding



Figure 2.5: Site Plan of Subject lands as per Reg. Ref: DA130709

In advance of the commencement of the preparation of a detailed scheme for the SHD site, and having regard to the extent of permitted developments (Phases 1A, 1B and 1C) to the south of the SHD site, the applicant and design team considered the merits of the now expired former permission and the masterplan for the overall landholding which formed a part of that application.

The key constraints to proceeding with a similar layout and scale of development were considered to be as follows:

- More recent permissions granted to the south of the SHD site had set new parameters in respect to such issues as the location of green space, vehicular and pedestrian linkages and the overall layout of the lands to the south. Therefore, the development of the SHD site in a manner similar to that within the previous masterplan would have been sub-optimal in terms of achieving a sustainable development

density, adequate public open space, and achieving appropriate levels of connectivity within the development and with surrounding uses.

- Updates and changes to the planning policy context in the interim which had implications for the layout indicated in the above-referenced masterplan for the lands.
- Alterations to land use zonings over the intervening period.
- The masterplan layout would have seen none of the hedgerows along the western and northern boundaries being retained, resulting in a loss of green infrastructure and ecology *vis a vis* the final scheme now proposed.
- More recent permitted developments on adjoining lands have altered the surrounding context in terms of population and urban form.

Alternative 2: Key Layout and Design Changes as the Proposed Development Progressed through Pre-application discussions with the Planning Authority Prior to Pre-Application Submission to An Bord Pleanála

The proposed development was subject to an exploratory pre-application meeting and a s. 247 detailed pre-application consultation with Meath County Council prior to the submission of the SHD pre-application request to the Board. These pre-application meetings helped to inform the design team's concept proposals for the subject site, with the creation of neighbourhood character areas interspersed with areas of public open space.

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

1. The need to ensure compliance with DMURS for internal road routes, keeping speeds low to improve the safety of road users and pedestrians, thereby reducing risk of accidents or negative impacts on human health and safety;
2. Providing cycle and pedestrian infrastructure of adequate width, and providing bus stops on the link road to encourage public transport use, thereby reducing the use of private car use and ameliorating associated vehicle emissions where possible;
3. The design and location of open space and its connectivity to existing green networks, both existing and planned in the wider area;
4. Accommodating surface water requirements in accordance with SUDs;
5. The need to provide adequate bin facilities for residents, including bin storage;
6. Provision of a bring centre to encourage recycling.

The proposals for the site advanced through the pre-application meetings addressing such issues such as phasing, densities, character areas, building typologies and materials. Initial masterplans for the SHD site were presented to the Planning Authority at the first, exploratory pre-application meeting, as illustrated below:



Figure 2.6: Masterplan proposals discussed at the first, exploratory pre-application meeting

Following the initial pre-application meeting with the Planning Authority, it was decided that, to avoid any potential contravention of the zoning objectives pertaining to the site, the initial intention to distribute public open space throughout the development in order to take account of the F1 (open space) zoning on the north-eastern reaches of the site should be revised to provide open space on the large majority of the F1 zoned lands within the site.

It was also decided to carry a linear green space along the entire western and northern boundaries of the site, to maximise the retention of existing hedgerow and trees, and to provide for the creation of a 'greenway' cycle and pedestrian route. Furthermore, it was intended to provide a pedestrian and cycle link to the west with the Dunshaughlin Business Park as part of the development.

The development as revised and amended for the formal S.247 pre-application meeting with the Planning Authority on the 7th of February 2018 is illustrated below.

Figure 2.7: SHD Scheme as presented at formal S.247 pre-application meeting with MCC



Alternative 3: Scheme Presented for Pre-Application Consultation with An Bord Pleanála

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 783 no. residential units and a neighbourhood centre, including retail / commercial units, a community facility, and a childcare facility on a site of c. 28.1 hectares.

The 783 no. residential units consisted of 500 no. houses (single and two storey), 80 no. duplex units (three storey) and 203 no. apartments (three to five storeys).

The neighbourhood centre facilities consisted of a childcare facility with a GFA of 910 sq.m, a community facility with a GFA of 150 sq.m, a retail unit with a GFA of 575 sq.m, and a primary healthcare / gym unit with a GFA of 852 sq.m.

During the course of the pre-application tripartite meeting with the Board, and within the Opinion of the Board which was issued thereafter, concerns were raised in respect of the design of the scheme at that time.

The Board stated *inter alia* that the scheme would benefit from increased density, and a more urban feel which would provide for a more defined urban edge for the town. It was also stated that a clearer rationale and analysis should be presented for the final design of the scheme, with clearly defined character areas and ease of access to the neighbourhood centre via sustainable transport modes. It was noted that pedestrian linkages should be prioritised and that these routes should be integrated into the overall scheme design. Notwithstanding the foregoing, the Board noted during the pre-application meeting that the subject site held the potential to provide for an exemplary development depending on the correct design approach being taken.

Following clear feedback from An Bord Pleanála at pre-application stage that amendments to the scheme were required, a reimagining and redesigning of the proposed development has been undertaken by the design team (as will be set out in detail below).

Figure 2.8: Scheme as presented to An Bord Pleanála at pre-application stage



Alternative 4: Alterations Considered on Foot of Archaeological Investigations

As set out within Chapter 4 of this EIAR, geophysical testing and test trenching on site revealed a small number of archaeological features, including a probably ring-barrow and two spreads of burnt-mound material, along with several pits, which are indicative of Bronze-Age habitation in the area.

Following discovery of these features, due consideration was given by the design team, and alternative approaches to the layout of the scheme were considered which would have allowed for the preservation of these features in situ. This included the overlaying of the features, along with an associated protection zone, onto the site layout, and the preparation of sketch layout amendments which would have allowed for the features to remain.



Figure 2.9: Overlay of the archaeological features on the site layout plan for the SHD scheme, undertaken as part of the assessment of alternative layouts which could accommodate preservation in situ

Following consideration by the Design Team the following issues were noted in respect to any requirement to preserve the identified archaeological features, in particular AA3, in-situ:

1. The location and spread of the identified features across the subject site would significantly impact on the layout of the forthcoming development and the overall viability of the subject lands for development if preservation in situ were to be required;

2. The preservation *in situ* of the identified double ditched barrow, i.e. AA3, adjacent to the identified open space area in the north of the site would lead to an over-concentration of open space within this area of the lands and would affect the distribution and hierarchy of open space.
3. A significant proportion of the site is already identified for open space as per the County Development Plan zoning for the lands, located primarily along the eastern boundary of the site, with a further portion along the western edge.
4. The preservation *in situ* of these features would force the design team to significantly revisit the revised design concept, which is based on an orthogonal / grid layout and hierarchy of open space areas, for these lands which has been agreed in consultation with Meath County Council and following pre-application consultation with An Bord Pleanála.

Having regard to the location and distribution of the archaeological features across the site, and associated constraints, the design team would find it difficult to accommodate preservation *in situ* particularly in respect of providing an appropriate density and layout of development on the subject lands, while also providing open space on the lands zoned for open space and recreational uses which form a part of the overall development site, as required by the Planning Authority / An Bord Pleanála.

In addition, the location of the AA3 archaeological feature would present difficulties in terms of retaining this feature within an open space area and providing a satisfactory layout of housing in this area of the site with associated potential impacts on amenity and quality of life for future residents of the scheme.

An associated constraint imposed by the archaeological features would be that the area would not be able to be used for attenuation volume. Maximising attenuation volume in the public open space is critical to ensure requirements of the Local Authorities standards and the Greater Dublin Strategic Drainage Study are met, in order to ameliorate any risk (environmental or otherwise) resulting from storm water on the subject site.

On the basis of the above, consultation was undertaken with the National Monuments Service, with a meeting taking place on the 11th of December 2018, following written correspondence.

During the course of that meeting with the NMS, it was confirmed by the NMS to the applicant and the project Archaeological Consultant (IAC), that the preservation by record of the archaeological features on the subject site would be acceptable having regard to the above.

Alternative 5: 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 which advised on further consideration relating to aspects of the proposed development, the applicant and design team have undertaken a significant re-design of the development proposal which is reflected within the final submission now set out.

Further consultations with the Planning Authority (two further meetings) 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 greater overall quantum of residential development, providing for a more sustainable level of density having regard to the land take of the proposed scheme and its location contiguous with the built up area of Dunshaughlin. The typologies of the units provided within the scheme have also been significantly changed, with a higher proportion of apartment and duplex type units *vis a vis* the previous iteration of the scheme design as submitted for pre-application consultation with the Board.

The final scheme now also provides for a swale / SUDs feature following a portion of the western boundary of the site. This feature has been added to the scheme following further modelling of storm water runoff from the adjacent Dunshaughlin Business Park toward the subject site. The addition of this feature will play a part in ameliorating the risk of flooding on the subject site, thereby mitigating by design against impacts from flooding on population and human health. The inclusion of this feature will also enhance the biodiversity of the scheme, as will the final design of the open spaces throughout the development, which provides for inter alia the provision of bat boxes, planting of native hedgerow and meadow areas, and flowering trees.

The previously considered cycle route / pathway across the employment lands to the west of the SHD scheme has now been omitted from the scheme, as the Department of Education and Skills now intends to develop an educational campus to the west of the SHD site. Provision for a future link with this educational use is made in the SHD scheme. The omission of this link also has regard to public safety and amenity concerns raised by An Bord Pleanála in respect of this potential route across the employment lands.

In summary, the design of the proposed development takes into account all environmental effects raised with respect to previous design alternatives and within the Board's opinion, 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 better 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 responding to the topography of the scheme, and allowing for a more efficient use of natural resources including land.



Figure 2.10: Extract from site layout plan for the final SHD scheme

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 of 913 no. residential units, a neighbourhood centre, including 2 no. retail units, a café / restaurant unit, a primary healthcare / gym, a community facility and a childcare facility, all associated open space, a section of the Dunshaughlin Outer Relief Road, internal roads, cycle and pedestrian infrastructure, services and all other associated development on a site of c. 28.3 hectares.

The 913 no. residential units proposed consist of 505 no. houses (single, two, and three storey), 186 no. duplex units (three storey), and 222 no. apartments (four and five storey).

The 505 no. houses proposed consist of the following:

- 45 no. 2-bedroom houses
- 382 no. 3-bedroom houses (including 4 no. bungalows)
- 50 no. 4-bedroom houses (including 5 no. bungalows)
- 28 no. 4/5-bedroom houses (three storey)

The 186 no. duplex units consist of the following:

- 20 no. 1-bedroom duplex units
- 84 no. 2-bedroom duplex units
- 73 no. 3-bedroom duplex units
- 9 no. 4-bedroom duplex units

The 222 no. apartments consist of the following:

- 50 no. 1-bedroom apartments
- 151 no. 2-bedroom apartments
- 21 no. 3-bedroom apartments

The proposed neighbourhood centre facilities consist of a childcare facility with a GFA of 1,282 sq.m, a community facility with a GFA of 180 sq.m, 2 no. retail units with GFA of 1,000 sq.m and 190 sq.m, a café / restaurant unit with a GFA of 370 sq.m, and a primary healthcare / gym unit with a GFA of 1,040 sq.m.

The development includes the delivery of a section of the Dunshaughlin Outer Relief Road from the Phase 1 site boundary to the northern site boundary, including connections to adjacent lands, improvements to a section of the Outer Relief Road delivered with the Phase 1 development to the south, a bus bay and toucan crossing on the Dublin Road, all associated open space, boundary treatment, internal roads, cycle and pedestrian infrastructure, foul and surface water drainage, a pumping station, attenuation tanks, car and cycle parking, ESB substations, other services and all other associated development.”

The SHD application to An Bord Pleanála is accompanied by detailed drawings and a detailed design statement, prepared by MCORM 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 net residential density of the proposed development will be 42.3 units per hectare, based on a net developable site area of 21.6Ha hectares, and a total of 913 no. residential units to be provided in the scheme. The overall residential density for the applicant's landholding (including previous phases of The Willows to the south) will be 36.9 units per hectare. Please refer to the site density drawing prepared by MCORM Architects for further details.

The proposed residential density accords with the outer-suburban greenfield nature of the subject site, which is situated in a Moderate Sustainable Growth Town. 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 0.46 and site coverage of 21.1%

Gross Floor Area

The proposed residential accommodation comprises a total of 96,979.4sq.m gross floor area. The proposed non-residential elements comprise of 4,062m². The total gross floor area of the overall development is 101,041.4sq.m.

Unit Mix

As noted above and within the public notices, the 913 no. residential units proposed consist of 505 no. houses (single, two, and three storey), 186 no. duplex units (three storey), and 222 no. apartments (four and five storey).

The 505 no. houses proposed consist of the following:

- 45 no. 2-bedroom houses
- 382 no. 3-bedroom houses (including 4 no. bungalows)
- 50 no. 4-bedroom houses (including 5 no. bungalows)
- 28 no. 4/5-bedroom houses (three storey)

The 186 no. duplex units consist of the following:

- 20 no. 1-bedroom duplex units
- 84 no. 2-bedroom duplex units
- 73 no. 3-bedroom duplex units
- 9 no. 4-bedroom duplex units

The 222 no. apartments consist of the following:

- 50 no. 1-bedroom apartments
- 151 no. 2-bedroom apartments
- 21 no. 3-bedroom apartments

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 (505 Total) - Rounded	Percentage of Overall Unit No.
2 – Bedroom	45	9%	5%
3 – Bedroom	382	76%	42%
4 – Bedroom	50	10%	5%
4 / 5 – Bedroom	28	6%	3%
DUPLEX UNITS			
Unit Type	Total No.	Percentage of Duplex Units (186 Total) - Rounded	Percentage of Overall Unit No.
1 – Bedroom	20	11%	2%
2 – Bedroom	84	45%	9%
3 – Bedroom	73	39%	8%
4 - Bedroom	9	5%	1%
APARTMENTS			
Unit Type	Total No.	Percentage of Apartments (222 Total) - Rounded	Percentage of Overall Unit No. – Rounded
1 – Bedroom	50	26%	5%
2 – Bedroom	151	68%	17%
3 – Bedroom	21	9%	2%

Building Heights

The houses within the proposed development are primarily two and three storeys in height, with a small number (9 no. in total) of single storey units provided. The duplex buildings within the scheme are primarily three and four storeys in height, while the apartment buildings are primarily four and five storeys in height.

Neighbourhood Centre Facilities / Non-Residential Uses

The SHD scheme provides for a range of neighbourhood centre-type ancillary uses, located within the higher density area of the scheme at a central location, and adjacent to the outer distributor road.

The proposed neighbourhood centre facilities consist of a childcare facility with a GFA of 1,282 sq.m, a community facility with a GFA of 180 sq.m, 2 no. retail units with GFA of 1,000 sq.m and 190 sq.m, a café / restaurant unit with a GFA of 370 sq.m, and a primary healthcare / gym unit with a GFA of 1,040 sq.m.

The inclusion of these facilities within the overall development ensures compliance with the neighbourhood centre objective on the subject lands in the County Development Plan zoning map. These neighbourhood centre facilities will ensure ease of access to amenities and facilities for future residents of the SHD scheme, and will also be conveniently located for residents of the permitted and under consideration phases of The Willows to the immediate south of the SHD site off the R147 road.

Open Space Provision

Public and Communal Open Space

The proposed development includes the provision of 51,970 sq.m (5.1 hectares) of public open space, along with 5,192 sq.m of communal open space for the proposed apartment units within the scheme.

Private Open Space

The houses proposed within the scheme provide for private open space 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.

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, 7 sq.m for two-bedroom, four-person apartments, and 9 sq.m for three-bedroom apartments. The compliance of the scheme with this standard is demonstrated within the Housing Quality Assessment prepared by MCORM Architects.

Car Parking

Houses

The houses within the proposed scheme are each provided with two car parking spaces, located primarily within the front curtilage of the house units. This equates to a total car parking provision of 1010 spaces for the proposed houses within the scheme. This level of provision is in accordance with the standard set out in the Meath County Development Plan 2013-2019 (Table 11.9).

Apartments and Duplex Units

Car parking is provided at a rate of one space per unit, plus one visitor space for every four units for the apartments within the proposed development, which is in accordance with the provisions of the 2018 Apartment Guidelines. This equates to 276 spaces in total for the proposed apartments within the development.

Two car parking spaces are provided for each of the 3 & 4-bedroom duplex units proposed (146 + 186 no. spaces) with one space provided for each one and two bed duplex units, plus one visitor space per four units (providing for an overall total of $130 + 186 = 316$ spaces for the proposed duplex units).

Neighbourhood Centre Facilities

85 no. spaces are proposed in total for the neighbourhood centre / community uses located within the neighbourhood centre area of the scheme. As is discussed in further detail below, this level of provision is considered to be justified on the basis the location of these ancillary uses within the centre of this large development scheme, providing for ease of access primarily on foot or bicycle. Furthermore, it is considered that many trips to this area of the scheme will be linked trips (i.e. related to more than one of the uses within the neighbourhood centre).

Cycle Parking

Houses

The County Development Plan states that cycle parking should generally be provided at a rate of one space per three car parking space within a development. Each of the houses within the scheme are provided with 1 no. cycle parking spaces (located within the front curtilage of terraced houses and within the rear curtilage of end of terrace / detached / semi-detached houses).

Apartments and Duplex Units

1 cycle parking spaces are provided for each of the apartment units and duplex units within the proposed development.

Neighbourhood Centre Facilities

30 no. cycle parking spaces are provided for the neighbourhood centre element of the scheme, located to the north and south of the retail/commercial area.

Phasing of Development

It is proposed that the development will be delivered in three phases, which have been set out on the accompanying phasing drawing prepared by MCORM.

The first phase of development provides for the delivery of 369 no. residential units comprising of a mix of houses, apartments and duplex units, along with the largest area of open space in the east of the site, three pocket parks, the neighbourhood centre facilities within the development, and the east-west portion of the greenway. This first phase of development will also provide the majority of the extent of the outer distributor road along the eastern boundary of the site.

The second phase of development also provides for a mix of residential typologies, totalling 337 no. units., along with areas of open space including the town park, and the remaining extent of the greenway along the western and northern boundaries of the site. The second phase of development will also provide the link to the Kellet's Grove residential area to the north.

The final phase of development provides for 207 no. residential units, which also includes a broad range of sizes and typologies. This final phase will also see the completion of the stretch of the outer distributor road to the boundary of the applicant's landholding, with the remainder to be provided by way of a Part 8 development by the Local Authority.

Character Areas

The design of the proposed development is arranged as a series of distinct character areas, which will be defined by variations in unit types and design, road layout and hierarchy and related open spaces.

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

Access

The proposed development includes the development of an internal road network, with a clear hierarchy of streets and shared surface home zones, each of which provides for cycle and pedestrian safety and access. The scheme also includes the delivery of a significant portion of the outer distributor road for Dunshaughlin, which will run along the eastern boundary of the SHD site, and will eventually link the R147 with the Lagore Road to the north, subject to the delivery of the final segment of the roadway by the Planning Authority.

The proposed scheme itself has been designed so as to be highly permeable, ensuring ease of circulation throughout and easy access to proposed areas of public open space and neighbourhood centre facilities.

Pedestrian and cycle routes will be provided throughout the scheme, with a main arterial pedestrian and cycle route running through the scheme from north to south. This pedestrian and cycle route will be continued via the connection through the lands to the north of the subject site, for which a letter of consent from the landowner is provided as part of the current application.

There are strong pedestrian and cycle linkages along the R147 to the south with the town centre of Dunshaughlin, which the SHD development will link into.

An educational campus is due to be developed by the Department of Education to the west / southwest of the SHD site, which will provide for additional permeability and strengthen linkages to the town centre.

The subject site also benefits from access to existing public transport services serving the town of Dunshaughlin. As set out in the Traffic and Transport assessment report prepared by ILTP Consulting and submitted herewith, there are 10-minute bus frequencies along the R147 to the south of the site at peak times, representing a high frequency public transport service.

The proposed development also makes provision for future additional bus services, with bus laybys for stops provided along the link road on the eastern side of the development. These bus stops will be conveniently located for access from the residential development and neighbourhood centre area and will also serve the future playing pitches to be provided by the Local Authority to the northeast of the site.

The site is also located c. 7.5 km from the M3 Parkway railway station, where there is in excess of 1,300 park and ride spaces available with direct train access to Dublin city centre.

Biodiversity & Green Infrastructure

In order to offset the potential loss of green infrastructure, further ecological compensatory measures are proposed as part of the scheme which include the provision of bat boxes at appropriate locations, the planting of native hedgerows (linking to boundary hedgerows), developing new compensatory woodlands, planting of flowering trees which are beneficial for pollinators, planting diverse meadow mixes and managing key grass area zones as meadows. The planning application is accompanied by an Appropriate Assessment Screening Report prepared by Openfield Ecological Services. The conclusion of the Screening Report is that there would

be no significant impacts on the Qualifying Interests or Conservation Objectives of the Natura 2000 sites considered in this assessment as a result of the proposed development.

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 provides for the delivery of 369 no. residential units comprising of a mix of houses, apartments and duplex units, along with the largest area of open space in the east of the site, three pocket parks, the neighbourhood centre facilities within the development, and the east-west portion of the greenway. This first phase of development will also provide the majority of the extent of the outer distributor road along the eastern boundary of the site.
- Phase 2 - The second phase of development also provides for a mix of residential typologies, totalling 337 no. units, along with areas of open space including the town park, and the remaining extent of the greenway along the western and northern boundaries of the site. The second phase of development will also provide the link to the Kellet's Grove residential area to the north.
- Phase 3 - The final phase of development provides for 207 no. residential units, which also includes a broad range of sizes and typologies. This final phase will also see the completion of the stretch of the outer distributor road to the boundary of the applicant's landholding, with the remainder to be provided by way of a Part 8 development by the Local Authority.

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 water proof 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.

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 and neighbourhood centre development at Dunshaughlin East, including 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 limitations of physical boundaries, adjoining land uses and land ownership the potential for growth of the proposed development is considered limited and confined primarily to potential minor domestic extensions which will have a negligible impact.

The parameters for the future development of the area in the vicinity of the subject site are governed by the Meath County Development Plan. Any adjacent undeveloped lands – zoned for residential use or otherwise – 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.

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. 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 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.