

## 4 EXAMINATION OF ALTERNATIVES

### 4.1 Introduction

This Chapter of the EIAR sets out the reasonable alternatives that have been considered for the Proposed Development and provides an indication of the main reasons for the final scheme choice, taking into account the effects on the environment in the context of the characteristics of the site (receiving environment). Article 5(1)(d) of the EIA Directive requires Environmental Impact Assessment Reports (EIAR) to include the following: -

*“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”.*

Paragraph 2 of Annex IV elaborates the requirement, as follows: -

*“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.”*

Pursuant to Section 3.4.1 of the Draft Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2017), 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’...”*

In accordance with Draft EPA Guidelines (EPA, 2017), different types of alternative may be considered at several key phases during the process. As environmental issues emerge during the preparation of the EIAR, alternative designs may need to be considered early on in the process or alternative mitigation options may need to be considered towards the end of the process.

The Draft EPA Guidelines (EPA, 2017) states: -

*“The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with ‘an indication of the main reasons for selecting the chosen option’. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or ‘mini-EIA’) of each alternative is not required.”*

Thus, the reasonable alternatives studied by the project design team and in the context of the associated Regulations, the alternatives of the Proposed Development in this EIAR Chapter as follows: -

- Alternative Locations.
- ‘Do Nothing’ Alternative.
- Alternative Processes.
- Alternative Mitigation Measures.
- Alternative Layouts & Designs.

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## 4.2 Development Rationale

The proposed development seeks to provide a residential development, ancillary public open space and road infrastructure in line with the Local Area Plan for this area. The nature of the development proposed is actively promoted at this location by Fingal County Council (FCC), through its Development Plan, Local Area Plan and having regard to other local and strategic plans and guidance.

The assessment of the proposed scheme in this EIAR has had regard to the detailed design as described and illustrated in the accompanying plans & particulars which accompany the planning application to the Board. This includes the relevant drawings and reports prepared by the Design Team.

## 4.3 Main Alternatives Studied

The main alternatives considered during the development of this project comprise alternative design solutions and layouts for a predominantly residential development at the subject site.

### 4.3.1 Alternative Locations

Under the Development Plan, the subject site is zoned both 'RA' (Residential Area) and 'OS' (Open Space), the objectives of which aim to: -

**Objective RA: -**

*"Provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure".*

**Objective OS: -**

*"Preserve and provide for open space and recreational amenities".*

For avoidance of doubt, the residential development itself is located on the Objective RA lands. The roadway required by the Local Area Plan linking Moyne Road to the south, with the new residential community passes through Objective OS lands.

The Local Area Plan was prepared by FCC to provide a framework for future development of this new residential community at the subject lands. The Local Area Plan itself was subject to the Strategic Environmental Assessment (SEA) process.

As such it is considered that the site is entirely suitable for the nature of development as proposed in the SHD Planning Application. It is not considered necessary to consider an alternative site location for the proposed development as a result.

### 4.3.2 'Do-Nothing' Alternative

In the event of a 'do-nothing' scenario, the site would remain 'as-is' with the undeveloped nature of the site or its former agricultural use retained.

A do-nothing approach would be contrary to the Council's objectives to promote residential land use at this site, in accordance with national, regional and local planning policy and guidance. It would potentially result in a failure of the housing needs of the County being appropriately met and the site being identified as 'vacant land'. An opportunity to achieve efficient and compact development which benefits from existing public transport connectivity would be undermined. A 'do nothing' approach would be considered inappropriate from a planning and housing perspective.

From an environmental perspective, beyond impact on human health from a failure to deliver sustainable residential development to meet housing and community development needs and further sustainable based on alternatives to travel by private car, a 'do nothing' approach is otherwise likely to result in a neutral impact on the environment in respect of material assets, land, water, air, climate, cultural heritage, biodiversity and landscape.

### 4.3.3 Alternative Processes

Alternative processes for the proposed housing, supporting facilities, amenities and infrastructure, at Construction and Operational Phase of the development, are discussed below: -

- **Construction Phase:** The proposed construction works comprise relatively standard building construction processes. As such there are no specific alternative construction processes identified in this EIA.
- **Operational Phase:** No new, unusual or technically challenging operational techniques are required, as such no alternative operational processes have therefore been considered at this point.

### 4.3.4 Alternative Mitigation Measures

The mitigation measures as outlined in the various chapters of this EIA are considered appropriate to the location, nature and extent of the project and its potential impacts. Due to this no alternative mitigation measures have been considered.

### 4.3.5 Alternative Layouts & Designs

The development of the LAP lands has generally been guided by a Development Framework Plan, prepared by Burke Kennedy Doyle Architects which was included as part of the development of Phase 1B (ABP Ref. 300514-17). As such, the layout has not deviated substantially from the Framework Plan other than minor adjustments to the layout due to detailed design and adherence to the aviation safety restriction regarding density.

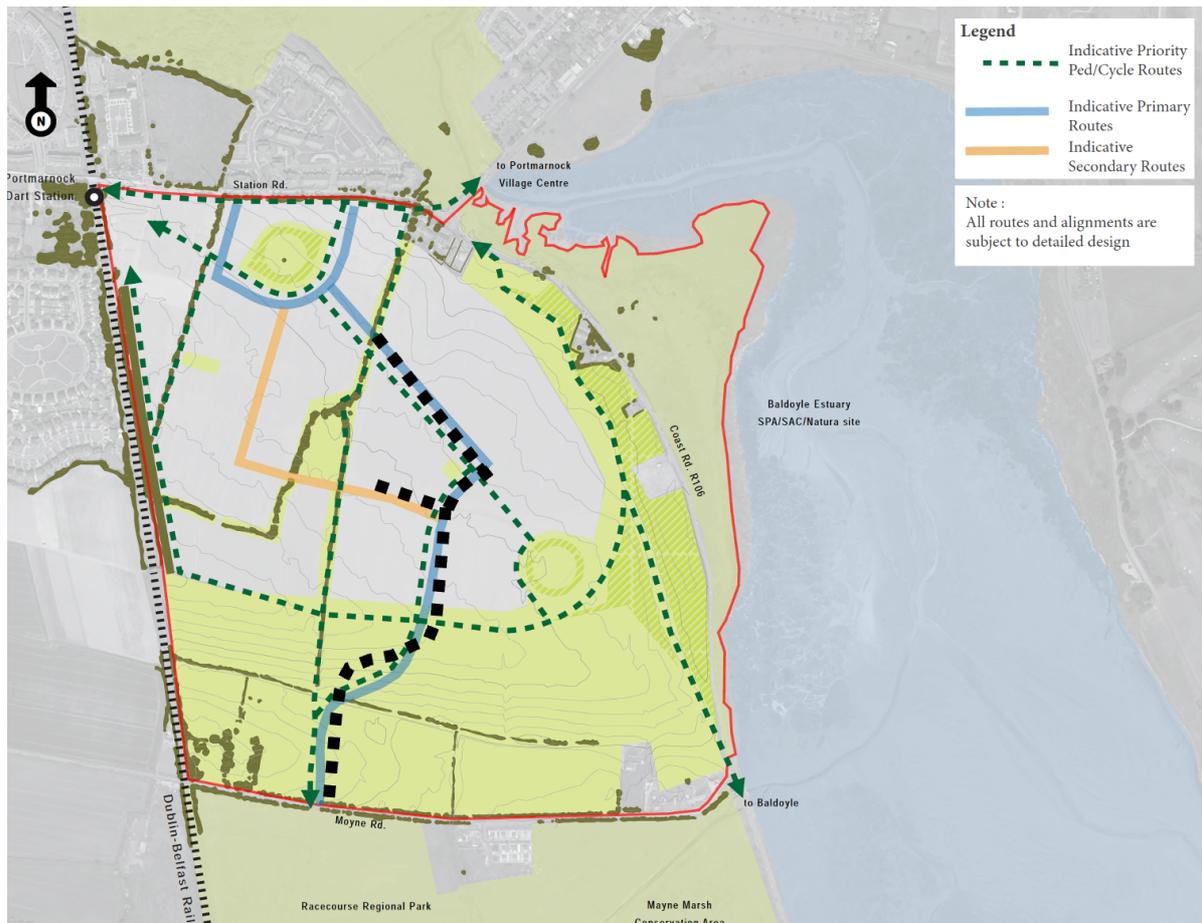
Notwithstanding, there have been some minor changes arising from the pre-planning dialogue which have been taken into consideration.

The EIA provides reasonable evidence that the Proposed Development can be accommodated in the subject site without predicted risk of significant adverse impact on the environment, subject to the identified mitigation measures at Construction and Operational Phases being implemented.

No specific further alternatives in respect of the nature, design and layout of the Proposed Development have been identified in the recommended EIA mitigation measures.

#### 4.3.5.1 Link to Moyne Road

The new access road serving the proposed development in this case is a requirement of the Local Area Plan. This road link is intended to serve the entirety of the residential neighbourhoods in the Portmarnock South area.



**Figure 4.1:** Extract from Figure 6.4 of the LAP showing the indicative alignments of the Primary and Secondary Routes (Proposed alignment shown indicatively in black dashed line – SLA Overlay).

Permission has recently been obtained for a temporary haul road (FCC Reg. Ref. F20A/0700). That is under construction and is expected to be complete during December 2021. The alignment of that route was informed through extensive dialogue with the Planning Authority to ensure that the most appropriate alignment was selected. The current proposal is to utilise the majority of that alignment for the ultimate long term access road alignment.

It was neither efficient, nor particularly sustainable to consider any other route alignment for the access road in this case than that already selected for the temporary haul road. As a result, no alternative route alignment for that access road was deemed necessary to consider.

Environmental Effects of the Final Proposed Development compared to Alternative Link Road Alignment			
Environmental Factor	Headings Under which the Environmental Factors were Assessed	Topic	Comparative Effect of Preferred Option
Population and Human Health		Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Biodiversity		Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.

Land, Soil & Geology		Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Water	Surface Water	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Waste Water	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Water Supply	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Flood Risk	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Climate	Air Quality & Climate Change	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Sunlight / Daylight	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Air	Noise and Vibration	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Material Assets	Traffic and Transport	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Waste	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Utilities	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Landscape and Visual	Visual Impact	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Cultural Heritage	Archaeological & Architectural	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction/operational phase.

#### 4.3.5.2 FCC Pre-Planning Layout

The Proposed Development was subject to series of Section 247 Pre-Planning meetings with FCC prior to the submission of the SHD Pre-Planning Consultation request to the An Bord Pleanála. These meetings helped to inform the design team's concept proposals for the subject site.

The initial Proposed Development consisted of c. 172no. residential units and associated landscaping, parking and open space on a c. 9.68 Ha site.

Figure 4.2 below shows the site layout as shown at the initial Section 247 Pre-Planning Meeting with FCC.



The key issues from an environmental perspective which arose during the FCC Pre-Planning Consultation that have influenced the current proposals can be summarised as follows: -

- FCC Water Services and Planning Department requested that a revised Confirmation of Feasibility (CoF) be sought from Irish Water. There was a concern that as the CoF was sought in 2019 the network capacity may be effected by other development in the interim.
- Further consideration of the impact of the aviation safety restriction regarding density.
- Further consideration of the impact of the provision of appropriate sightlines at the new junction with Moyne Road.

<b>Environmental Effects of the Final Proposed Development compared to Layout at FCC Pre-Planning Layout</b>			
<b>Environmental Factor</b>	<b>Headings Under which the Environmental Factors were Assessed</b>	<b>Topic</b>	<b>Comparative Effect of Preferred Option</b>
Population and Human Health		Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Biodiversity		Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Land, Soil & Geology		Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Water	Surface Water	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Waste Water	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Water Supply	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Flood Risk	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Climate	Air Quality & Climate Change	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Sunlight / Daylight	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Air	Noise and Vibration	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Material Assets	Traffic and Transport	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Waste	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u>

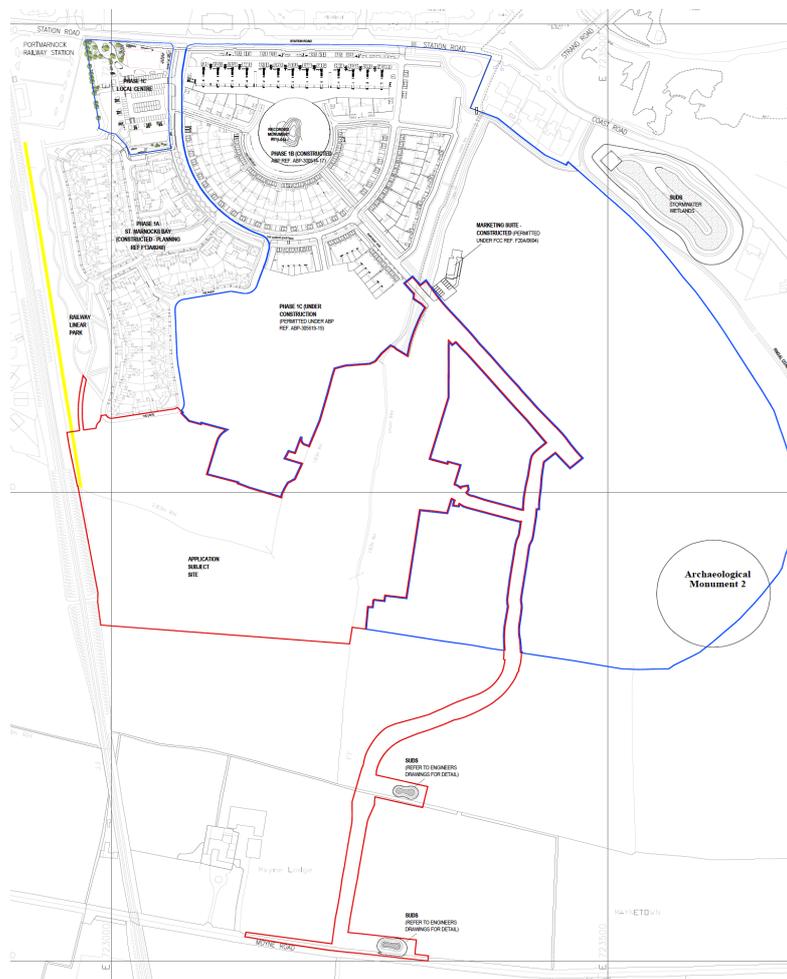
			No perceived additional adverse effects during construction / operational phase.
	Utilities	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Landscape and Visual	Visual Impact	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Cultural Heritage	Archaeological & Architectural	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction/operational phase.

4.3.5.3 An Bord Pleanála Pre-Planning Layout

The scheme as submitted with the Pre-Planning Consultation 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-Planning Consultation comprised of 172no. residential dwellings in a mix of houses and duplexes ranging in heights from 1.5 to 3 storeys. The layout provided for significant public open spaces and network of pedestrian / cyclist facilities.

Figure 4.3 below shows the site layout as shown at the initial Section 247 Pre-Planning Meeting with FCC.





	Waste Water	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Water Supply	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Flood Risk	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Climate	Air Quality & Climate Change	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Sunlight / Daylight	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Air	Noise and Vibration	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Material Assets	Traffic and Transport	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Waste	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
	Utilities	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Landscape and Visual	Visual Impact	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction / operational phase.
Cultural Heritage	Archaeological & Architectural	Construction Phase Operational Phase	<u>Neutral, imperceptible and permanent</u> No perceived additional adverse effects during construction/operational phase.

#### 4.3.5.4 Final Proposed Development

Responses to each of the listed items requiring further consideration within the An Bord Pleanála Opinion have been provided as part of this SHD Planning Application. The scheme has been updated and improved as a result. The overall design and layout presented during Pre-Planning Consultation was considered to be broadly acceptable by An Bord Pleanála and the Planning Authority (FCC), and therefore a fundamental redesign was not considered necessary or appropriate.

The Board, in its assessment of the key issues to be further examined by the Applicant to support a reasonable basis for an application for strategic housing, identified the following design issue for further consideration and / or justification: -

- Water and wastewater proposals to service the development. Provide details of necessary upgrade works required to facilitate the development having regard to the network constraints raised by Irish Water in their report dated 18<sup>th</sup> June 2021 and in the report of the Planning Authority's Water Services Department dated 24<sup>th</sup> May 2021. In the event that Irish Water infrastructure is not available, a justification should be submitted that seeks to address the potential negative impact of the development on the existing infrastructure, in particular the temporary pump station and clarify any upgrades that may also be required to allow additional connections to this pump station.

The Proposed Development was subject of further alteration to address the matters above and arrive at an optimal solution in respect of making efficient use of zoned, serviceable lands whilst also addressing the potential impacts on the environment relating to residential, visual, natural and environmental amenities and infrastructure. In broad terms, the key change to the layout from Pre-Planning Consultation with An Bord Pleanála are as follows: -

- Site boundary amended to include the temporary foul Pumping Station constructed in Phase 1B to facilitate upgrade works to serve the Proposed Development.
- Site boundary amended to include larger area for the SuDs features associated with the new permanent road to connect with Moyne Road.
- Provision of 3no. ESB Sub-stations.
- Re-location of the bicycle stores.
- Minor changes to treatment / material finishes of units across the site.
- Minor changes have occurred to landscaping and there have been minor adjustments to road layouts but these are not considered significant in nature.

The development as now proposed is considered to have arrived at an optimal solution in respect of making efficient use of zoned, serviceable lands whilst also addressing the potential impacts on the environment relating to residential, visual, natural and environmental amenities and infrastructure.

The Proposed Development subject of this SHD Planning Application will generally comprise: -

- 172no. residential units consisting of 22no. duplex / apartments and 150no. houses ranging in heights between 1.5 and 3 storeys.
- Provision of public open space including Skylark Park and extension to Railway Linear Park and Townland Boundary Linear Park.
- Vehicular access to serve the development is proposed off the existing / under construction access points on roads serving the St. Marnock's Bay development.
- A new vehicular road is proposed to serve the Proposed Development which will connect with Moyne Road. The permanent road includes the provision of a new junction with Moyne Road and SuDS features to control surface water run-off.
- Upgrade of existing temporary foul water pumping station and storage tank to increase capacity.
- All associated and ancillary site development, infrastructural, landscaping and boundary treatment works.



Figure 4.4: The layout of the Proposed Development as submitted as part of this SHD Planning Application.

Please refer to Chapter 3: Description of Proposed Development of the EIAR for a further detailed description of the Proposed Development. The final design presents the most effective utilisation of this significant site, fulfils FCC objectives and ensures the optimum provision of much-needed housing while delivering residentially led, mixed use development of the highest quality.

To summarise it is considered that the final layout: -

- Advances the strategic and statutory objectives applicable to these lands and the wider area.
- Optimises development space within the overall site, in an efficient and sustainable manner.
- Enables extensive economic development through both employment created at Construction and Operational Phases, and also under future phases of development.
- Avoids the necessity to utilise in a non-sustainable manner other greenfield lands, particularly those in the Greater Dublin Area.
- Affords excellent play opportunities and open space provision for the Proposed Development and to members of the public.
- Encourages the use of public transport and provides pedestrian and cycle links throughout and in future phases to minimise car usage within the scheme.
- Avoids significant environmental impacts.

The final iteration of the Proposed Development is not considered to give rise to any significant adverse environmental impacts. Mitigation measures to be implemented at construction and operation stages of the project are summarised in Chapter 18: Summary of Mitigation Measures of the EIAR.