

## 4 EXAMINATION OF ALTERNATIVES

### 4.1 Introduction

The EIA Directive (2014/52/EU) requires Environmental Impact Assessment Reports (EIAR) to include the following: -

*“A description of 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.”*

For the purposes of the Regulations, the alternatives can be described in three ways: -

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

### 4.2 Development Rationale

The proposed development seeks to provide a high density residential development and related facilities at residentially zoned land. The nature of the development proposed is actively promoted at this location by South Dublin County Council, through its development plan and having regard to other local and strategic plans and guidance. We refer also to the South Dublin County Council Stakeholder Report that accompanies the application, which sets out the site identification and development considerations for this site by the Council as a housing authority stakeholder.

The proposed development seeks to optimise the advantages of the various design iterations identified through the masterplan / competitive tender and planning design stages. The proposal has been refined and developed to achieve the ‘best fit’ residential neighbourhood development for the application site, having regard to the joint venture development requirements of the housing authority and the site specific sensitivities, opportunities and constraints.

Particular attention has been paid to achieving sustainable residential density at this site location, that is consistent with the Council’s core settlement and housing strategy for South Dublin County and national and regional policy guidance. In design terms, built form (including height) and layout seeks to achieve optimum sustainable urban density, in the context of delivering high quality residential design and choice of tenure, protecting the residential amenity of existing and prospective residents, ensuring sustainable integration of land use and transportation, protecting and integrating the existing natural landscape, delivering sustainable drainage solutions and preserving and enhancing biodiversity, in the creation of a new urban neighbourhood as a place to live.

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. The main alternatives considered are illustrated and described in the Architectural Design Statement prepared by Burke Kennedy Doyle Architects.

### 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 South Dublin County Development Plan 2016 – 2022, the subject site is zoned ‘RES-N’, the objective of this is: -

*“To provide new residential communities in accordance with approved area plans.”*

A Masterplan was prepared by South Dublin County Council to provide a framework for future development of this new residential community at the subject lands. The Kilcarbery Grange Masterplan (2017) itself was subject to the Strategic Environmental Assessment (SEA) process.

The land use zoning and masterplan for the lands at Kilcarbery continue to be supported at strategic regional planning policy level also, with Kilcarbery being identified as part of a hierarchy of lands in the ‘South Western Corridor’, at the edge of Clondalkin, that support the development of new residential communities linked to planned increased public transport capacity along the Kilcare rail corridor and employment lands at Grangecastle supported by additional bus connections, in the Regional Spatial and Economic Strategy and Dublin Metropolitan Area Strategic Plan..

At this location the proposed scheme is representative of plan-led development, that delivers significant additional public and private housing in a range of house types in a consolidated, accessible urban neighbourhood. Proposed housing development will be supported by ancillary and associated community facilities, public open space.

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

#### 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.

The subject site has been zoned for residential development at the western edge of Clondalkin, to meet identified housing need in South Dublin County. Clondalkin lies outside the M50 ring but within the built up area of ‘Dublin & Suburbs’ in the Dublin Metropolitan area.

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 more sustainable pedestrian and cycle connections between the R136 and New Nangor Road, via the proposed development, to Corkagh Park and surrounding existing residential development would be lost. 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 local pedestrian and bicycle connections, 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 EIAR.

- **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 EIAR 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

A number of site layout and alternative designs were considered during the iterative design process in consultation with South Dublin County Council. Further design alterations were informed at planning design stage by the Opinion of An Bord Pleanála on foot of Pre-Application Consultation held on 11 February 2019.

No particular further alternatives to the nature, design and layout of this project have been identified in the preparation of this EIAR, as a result of potential significant adverse impacts on the environment arising at planning design stage. The mitigation measures do not call for changes to the design and layout of the proposed residential scheme.

The EIAR 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 stages being implemented.

##### 4.3.5.1 Kilcarbery – Grange Masterplan Layout

The Kilcarbery – Grange Masterplan (2017) was subject of Strategic Environmental Assessment.

This Masterplan shows an indicative layout, allowing for a net development density range of 35 – 50 units per Ha.

The Masterplan noted the key features as being: -

- The net development density will range from 35 – 50 units per hectare.
- Higher scale and density typologies (apartments, duplex, townhouses, 3 – 5 storeys) will be provided at Outer Ring Road, Corkagh Park, Grange Avenue and Grange Square.
- Medium and lower scale density and typologies (townhouses, terraces, 2 – 3 storeys) will be located in local streets and spaces.
- Building scale will be increased where appropriate to aid local legibility.
- Double aspect units will be provided as required by regulation and best practice.
- Active building frontage will be provided to all street and space frontages avoiding gable-ended frontage, except where abutting the gables of existing developments.
- Urban blocks will be arranged to provide passive oversight of public domain at street corners.

The process of designing proposed layouts has been based upon the abovementioned features.

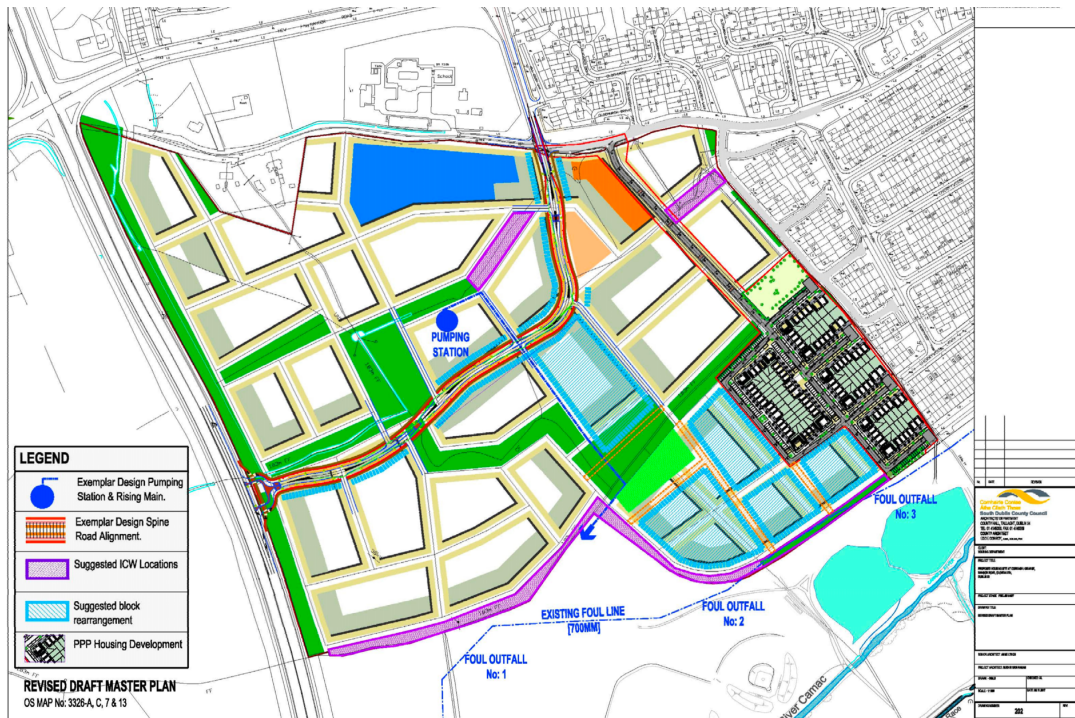


Figure 4-1: Extract from the Kilcaberry – Grange Masterplan (2017) showing the indicative layout.



Figure 4-2: Tender / Dialogue Process Layout prepared by Burke Kennedy Doyle Architects.

The proposed layout subject of Pre-Planning Consultation with South Dublin County Council (See Figure 4.2 above) was subject of significant design alteration in order to avoid the removal of significant landscape buffers (existing hedgerow and tree lines along field boundaries) within the application site. The alternative layout seeks to deliver a landscape led scheme, incorporating found landscape with green infrastructure links as part of the ‘biophilic’ concept for the proposed scheme.

Road layout and drainage strategy (including SuDs) were evolved through consultation between the Design Team and the Planning Authority. Also, sustainable integration of the new residential neighbourhood with the biodiversity, landscape and drainage attributes of Corkagh Park were subject of consultation with the Planning Authority and an iterative design process, to arrive at an optimal scheme in respect of landscape and environmental impacts.

#### 4.3.5.2 An Bord Pleanála Pre-Planning Consultation

The proposed development comprising 978no. dwellings in a mix of 624no. houses and 354no. duplexes and apartments with a height range of 2 to 6 storeys, was submitted to An Bord Pleanála for formal consultation at Pre-Planning Consultation stage.



**Figure 4-3:** Site Layout as proposed at An Bord Pleanála Pre-Planning Stage, prepared by Burke Kennedy Doyle Architects.

The Planning Authority (SDCC) found the proposal to be broadly acceptable in terms of design and layout, subject to a number of detailed design considerations relating to drainage solutions, residential amenity standards (particularly communal private spaces), ecological assessment, pedestrian connectivity and phasing.

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 issues for further consideration and/or justification:

- Sustainable residential density that results in acceptable efficiency in use of serviceable land, balance with site context. Appropriate net density to be justified having regard to the relevant national and regional planning policy and guidance for a site at this location.
- Design, Layout & Unit Mix to have regard to the 12no. criteria identified in the Urban Design Manual (2009), in particular the creation of distinct character areas, sufficiently robust urban edge to the west and south, connections to existing and proposed residential development and public open spaces.

- Surface water management and maximization of SuDs measures.

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 summary: -

- The number of units was increased to 1,034no.
- Design changes to the built edge were made along the western boundary with the R136 to increase building height and strengthen the visual presence of the scheme from the orbital rod.
- Design changes to the southern edge with Corkagh Park sought to deliver an appropriately robust urban edge, that also is sensitive to the natural boundaries, biodiversity and relative tranquility of the parkland.
- Green linkages, incorporating natural landscape features and providing enhanced connections to existing pedestrian and cycle facilities at the R136 and Corkagh Park, connecting also to surrounding housing, were more clearly developed and identified. Proposed connections to planned future education and neighbourhood centre facilities to the north were also more clearly identified
- An appropriate SUDS treatment train was agreed with South Dublin County Council, integrating also with Corkagh Park to the south.



**Figure 4-4:** Proposed Site Layout showing the changes to the proposed scheme between Pre-Planning Consultation with An Bord Pleanála and the final iteration prepared by Burke Kennedy Doyle Architects.

The final iteration of the scheme 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 identified in Section 17: Summary of Mitigation Measures of the EIAR.