

ENVIRONMENTAL IMPACT ASSESSMENT REPORT VOLUME 1 – NON-TECHNICAL SUMMARY

LARGE SCALE RESIDENTIAL DEVELOPMENT (LRD) AT DALGUISE HOUSE MONKSTOWN ROAD, MONKSTOWN, BLACKROCK, COUNTY DUBLIN



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1.0 INTRODUCTION

Chapter 1 introduces the project and describes the scope and methodology of the EIA process. The consultation process which was undertaken is outlined and the competencies of the environmental assessment team are provided. The description of the proposed project is provided in Chapter 5 and the consideration of alternatives is provided in Chapter 4.

1.1 Outline Details

This Environmental Impact Assessment Report (EIAR) relates to a 7 year Large Scale Residential Development (LRD) application by the GEDV Monkstown Owner Limited¹ (referred to as the Applicant throughout) for the redevelopment of lands at Dalguise House (Protected Structure RPS No. 870), Monkstown Road, Monkstown, Blackrock, County Dublin, A94 D7D1; and the lands including A94 N3A1 Garage; A94 R9T1 Gate Lodge; A94 TP46 Dalguise Lodge (No. 71 Monkstown Rd); A94 V6V9 White Lodge; and on-street car parking in front of Nos. 6 and 7 Purbeck (A94 C586 and A94 HT99, respectively), with the provision of vehicular and pedestrian access and egress at two points on Monkstown Road: the existing entrance to Dalguise; and at Purbeck.

This EIAR provides an assessment of the environmental impact and associated mitigation measures arising as a result of the proposed development. It has been prepared in accordance with the requirements of the *Planning and Development Act 2000* (as amended), the *Planning and Development Regulations 2001* (as amended) and the relevant guidance documents.

The LRD application site measures c.3.58 ha and is lies on an existing residential property within the built-up area of Monkstown approximately 1.5 km west of Dún Laoghaire town centre and c. 1.5 km southeast of Blackrock village. The proposed LRD comprises 493 No. residential units, consisting of 486 No. new build units and 7 No. residential units within existing structures (the latter repurposed from Dalguise House, Gate Lodge and Coach House).

The residential provision will comprise: 3 No. three storey 3-bed terraced houses (GFA 569 sq m), and 490 No. Build-to-Rent units (consisting of 2 No. studio units; 289 No. 1-beds; 20 No. 2-beds/3 persons; 166 No. 2-beds/4-persons; and 13 No. 3-beds) (with an option for the use of 4 No. of the BTR Units to cater for short-term stays of up to 14 days at any one time to cater inter alia for visitors and short-term visits to residents of the overall scheme) residential amenities and residential support facilities; a childcare facility; and restaurant/café.

Vehicular and pedestrian access and egress is provided at two points on Monkstown Road: the existing entrance to Dalguise; and at Purbeck. Alterations will be made at Purbeck including the relocation of 4 No. existing car parking spaces to facilitate the construction of a new vehicular and pedestrian bridge over the Stradbroke Stream.

¹ 3rd Floor, Kilmore House, Spencer Dock, Dublin 1.



1.2 EIA Process

This EIAR sets out the results of the environmental assessments which have been completed for the proposed development to inform the planning consent process.

The EIAR has been completed as a statutory environmental assessment. The environmental impact assessment process has been completed in accordance with Directive 2011/92/EU, as amended by Directive 2014/52/EU (together, the EIA Directive). The primary objective of the EIA Directive is to ensure that projects that are likely to have significant effects on the environment are subjected to an assessment of their likely impacts.

EIA forms part of the planning consent process and is carried out by the Competent Authority. An EIAR is prepared by/ on behalf of an Applicant in respect of a project seeking planning consent. The EIAR thus becomes an integral informing element in the Competent Authority's EIA. The 2014 Directive has introduced new requirements in respect of the competency of experts responsible for the preparation of the EIAR (see Table 1.3 of Chapter 1 of Volume 2- Main Report for details on the experts involved in the preparation of this document).

The EIA process may be summarised as follows:

- Screening – Is EIA Required?
- Scoping – If EIA is Required, what aspects of the Environment should be considered?
- Preparation of EIAR
- EIAR informs EIA (as part of the consent process)

1.3 The Need for EIA

The proposed development has been screened for EIA in accordance with the *European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018*), in accordance with the EIA Directive.

Section 172(1) of the Acts sets out the requirement for EIA. Mandatory EIA is required for Projects listed in Part 1 of Schedule 5 of the *Planning and Development Regulations 2001-2020* ("the Regulations"), referred to as Annex I Projects, in accordance with the EIA Directive.

The Project is not listed within Part 1 of Schedule 5 of the Regulations and therefore mandatory EIA is not required in this instance.

With respect to Part 2 of Schedule 5 (Annex II Projects), the Project has been assessed against the following relevant criteria:

Class 10 – Infrastructure Projects

Subsection 10(b)(i):

"Construction of more than 500 dwelling units"



This Project comprises a large-scale residential development including 493 No. residential units comprising: 3 No. three storey 3-bed terraced houses (GFA 569 sq m), and 490 No. Build-to-Rent units (consisting of 2 No. studio units; 289 No. 1-beds; 20 No. 2-beds/3 persons; 166 No. 2-beds/4-persons; and 13 No. 3-beds) (with an option for the use of 4 No. of the BTR Units to cater for short-term stays of up to 14 days at any one time to cater inter alia for visitors and short-term visits to residents of the overall scheme) residential amenities and residential support facilities; a childcare facility; and restaurant/café.

The Project lies just below the 500-dwelling unit threshold and therefore a mandatory EIA is not required in the context of this Class of the Regulations.

Part 2 Class 10 – Infrastructure Projects

Subsection 10(b)(iv):

“Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere”

(In this paragraph, “business district” means a district within a city or town in which the predominant land use is retail or commercial use.)”

The LRD Project relates to a site of c.3.58 hectares and is located within an area which comes within the definition of “other parts of a built-up area”. The Project therefore does not exceed the threshold of 10 hectares, with respect to site area of the proposed development.

The proposed residential development does not exceed the criteria as set out to determine the need for a mandatory EIA. However, section 172 of the Planning & Development Act 2000, as amended, also sets out the basis for EIA for developments which do not equal or exceed, the relevant quantity, area or other limit specified in Part 2 of Schedule 5, i.e., “sub-threshold development”. Thus, an EIA is required where sub-threshold development is likely to have significant effects on the environment and therefore should be subject to EIA.

Given that the proposed development for 493 units is almost equal to the “Construction of more than 500 dwelling units”, it was deemed prudent to undertake an EIAR in relation to the subject development to ensure that the proposal does not negatively impact on the environment.

Part 2 Class 14 – Works of Demolition

“Works of demolition carried out in order to facilitate a project listed in Part 1 or Part 2 of this Schedule where such works would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7”.

The development will consist of the demolition and part-demolition of existing structures (total demolition area 967 sq m), including: White Lodge a 2 storey house (192 sq m); Swimming pool extension to the southeast of Dalguise House (250 sq m); Residential garage and shed to the southwest of Dalguise House (285 sq m); Lean-to structures to the south of the walled garden (142 sq m); Part-demolition of Lower Ground Floor at Dalguise House (9 sq m); Demolition of single storey extension to the south of the Coach House (29 sq m) and three



ancillary single-storey structures (8 sq m, 8 sq m, and 31 sq m) within the yard; Demolition of potting shed (13 sq m); Removal of 2 no. glasshouses; and alterations to, including the creation of 3 No. opes and the removal of a 12.4 m section of the walled garden wall to the east.

Given the scale and nature of buildings to be demolished, it is not envisaged that likely significant effects on the environment arising from the demolition will occur. Nevertheless, the likely impacts arising with respect to the demolition of these building will be assessed in full as part of the EIA, in the context of Material Assets – Waste, Material Assets - Traffic and Transportation, Noise and Vibration, Air Quality and Climate, Human Health, and as part of the Construction Environmental Management Plan. On this basis, it is considered that the Project does not require the preparation of an EIAR with respect to this Class.

1.4 Purpose of the Environmental Impact Assessment Report

As noted, the 2014 Directive has redefined EIA as a process, whereby an EIAR is a key informing element. An EIAR's purpose is to predict and assess likely significant effects (direct and indirect) on the environment arising from the proposed development. It is used during the consent process to inform EIA.

As per Article 5(1) of the amended Directive, an EIAR should provide the following information:

- Description of Project
- Description of Baseline Scenario
- Description of Likely Significant Effects
- Description of Avoidance / Mitigation Measures
- Description of Reasonable Alternatives (and rationale for chosen option)
- A Non-Technical Summary

Annex IV of the Directive sets out a more detailed outline of the information required in an EIAR. The subject EIAR has been prepared in full accordance with these stated requirements of Annex IV.

The preparation of the *Environmental Impact Assessment Report* has been co-ordinated by Tom Phillips + Associates, Town Planning Consultants, in association with other members of the Project Team as identified in Table 1.3 of Chapter 1 of Volume 2-Main Report.

1.5 Scoping of the Environmental Impact Assessment

An informal EIA scoping exercise was undertaken by TPA in May 2022, with respect to the proposed development. The purpose of the EIA scoping exercise was to inform consultees of the proposed development, having regard to the extent of information to be contained within the EIAR for the project.

The scope of the EIAR has been prepared in consultation with the respective specialists within the EIA team. The Report set out a detailed justification relating to the environmental aspects to be considered in detail in the EIAR for the proposed development on the basis of the potential for significant effects.



The non-statutory scoping exercise was documented within the *Environmental Impact Assessment Scoping Report (and Summary of Possible Effects)* that accompanied the pre-application submission to Dún Laoghaire-Rathdown County Council.

1.6 EIAR Format

In addition to the 2014 Directive, the subject EIAR has been informed by:

- *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (2022);
- *Advice Notes for Preparing Environmental Impact Statements*, Draft, (EPA September 2015);
- *Environmental Impact Assessment of Projects: Guidance on Screening* (European Commission, 2017);
- *Environmental Impact Assessment of Projects: Guidance on Scoping* (European Commission, 2017);
- *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report* (European Commission, 2017);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, (August 2018).

1.6.1 Baseline Environment

This section provides a description of the current state of the environment related to the subject site.

1.6.2 Likely Potential Effects of the Proposed Development

This section allows for a description of the direct and indirect impacts that the proposed development is likely to have on aspects of the environment affected. This is done with reference to both the Baseline Environment sections and the Description of the Proposed Project chapter, while also referring to the magnitude, duration, consequences (including use of natural resources) and significance of any impact.

1.6.3 Mitigation Measures

This section provides a description of the measures envisaged to prevent, reduce and (where possible) offset any significant adverse effects on the environment that are practicable or reasonable, having regard to the potential impacts.

1.6.4 Monitoring

This section outlines monitoring measures (for both construction and operational stages), where appropriate, in cases where significant adverse impacts have been identified.



1.6.5 Consideration of Alternatives

This part of the EIAR describes the reasonable alternatives considered and provides a rationale for the chosen option, having regard to environmental factors listed at Article 3(1) of the EIA Directive.

1.6.6 Interactions

This section provides an overview of the inter-relationship between each of the different environmental aspects assessed, as identified by each of the specialists within their respective chapters.

1.6.7 Cumulative Impacts

This chapter has regard to the potential cumulative impact upon the environment arising from the proposed project, in combination with other developments (committed or planned projects) in the surrounding area. The other projects assessed in combination with the proposed development are outlined in Chapter 17 of this NTS.

1.7 EIAR Project Team and Guarantee of Competency and Independence

The Environmental Impact Assessment Report was completed by a project team led by Tom Phillips + Associates, who also prepared a number of the chapters.

In accordance with amended EIA Directive (Directive 2014/52/EU), we confirm that the experts involved in the preparation of this EIAR are fully qualified and competent in their respective fields. Each has extensive proven expertise in the relevant field concerned, thus ensuring that the information provided herein is complete and of high quality. The individual members of the team and their respective inputs and competency are detailed in Table 1.3 of Chapter 1 of Volume 2-Main Report.

2.0 DESCRIPTION OF THE PROPOSED PROJECT

In summary, the proposed development is a 7 year permission for a Large Scale Residential Development comprising 3 No. three storey 3-bed terraced houses (GFA 569 sq m), and 490 No. Build-to-Rent units (consisting of 2 No. studio units; 289 No. 1-beds; 20 No. 2-beds/3 persons; 166 No. 2-beds/4-persons; and 13 No. 3-beds) (with an option for the use of 4 No. of the BTR Units to cater for short-term stays of up to 14 days at any one time to cater inter alia for visitors and short-term visits to residents of the overall scheme) residential amenities and residential support facilities; a childcare facility; and restaurant/café.

Vehicular and pedestrian access and egress is provided at two points on Monkstown Road: the existing entrance to Dalguise; and at Purbeck.

The proposal also includes alterations at Purbeck including the relocation of 4 No. existing car parking spaces to facilitate the construction of a new vehicular and pedestrian bridge over the Stradbrook Stream.

The development, with a total gross floor area of approximately 47,382 sq m (including a basement of 5,396 sq m and undercroft parking of 1,403 sq m) (of which some 46,154 sq m is new build, and 1,228 sq m retained existing buildings).



Figure 2.1: Extract from the Design Statement showing a 3D image of the proposed LRD scheme (Source: Reddy Architecture and Urbanism)

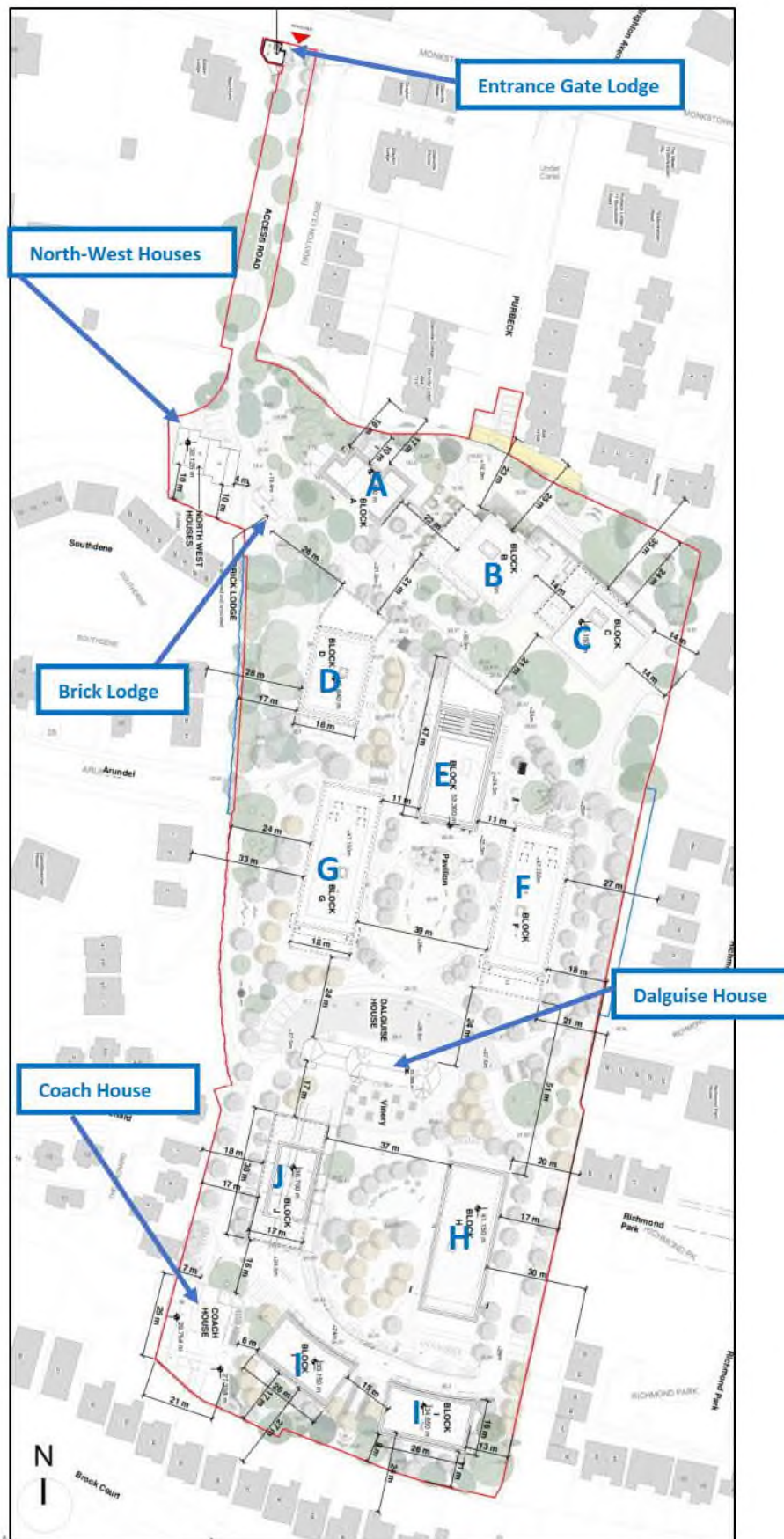


Figure 2.2: Proposed Site Layout Plan (Source: Reddy Architecture and Urbanism, Dwg No. MKS-RAU-ZZ-XX-XX-DR-AR-002 Rev. P02, annotated by TPA, 2023.)



The proposed development comprises the construction of 493 No. residential units in total consisting of 486 No. new build and 7 No. residential units. The 7 No. residential units be located within the existing Dalguise House, Gate Lodge (Brick Lodge) and Coach House, all of which are proposed to be reused and repurposes as part of the subject proposal.

The residential mix is broken down as follows:

- 3 No. 3 storey 3-bed terraced houses.
- 490 No. Build-to-Rent units (consisting of 2 No. studio units; 289 No. 1-beds; 20 No. 2-beds/3 persons; 166 No. 2-beds/4-persons; and 13 No. 3-beds)

An option for the use of 4 No. of the BTR Units to cater for short-term stays of up to 14 days at any one time to cater *inter alia* for visitors and short-term visits to residents of the overall scheme is also proposed. Residential amenities, residential support facilities, a childcare facility and restaurant/café are also provided.

Demolition and Alterations to Existing Structures

The demolition and part-demolition of existing structures (total demolition area 967 sq m), including:

- White Lodge a 2 storey house (192 sq m);
- Swimming pool extension to the southeast of Dalguise House (250 sq m);
- Residential garage and shed to the southwest of Dalguise House (285 sq m);
- Lean-to structures to the south of the walled garden (142 sq m);
- Part-demolition of Lower Ground Floor at Dalguise House (9 sq m);
- Demolition of single storey extension to the south of the Coach House (29 sq m) and three ancillary single-storey structures (8 sq m, 8 sq m, and 31 sq m) within the yard;
- Demolition of potting shed (13 sq m);
- Removal of 2 no. glasshouses; and
- Alterations to, including the creation of 3 No. opes and the removal of a 12.4 m section of the walled garden wall to the east.

Residential Development

The proposed residential units will be arranged as follows:

Northwest Houses

The proposed development includes 3 No. 3-bed terraced houses located at the north west of the site at the main Dalguise House entrance. The 3 no. houses are three-storey in height and have a total gross floor area of 569 sq m.

Block A

Block A is located at the Purbeck entrance to the south of the site and is 7 storeys in height. The building has a gross floor area of 2,015 sq m and comprises a childcare facility, which is



540 sq m over Ground and First Floor Levels; and 19 no. apartment units, including 15 No. 1-beds and 4 No. 2-beds/4-person units.

Block B & Block C

Block B & Block C are located to the south of the site at the main vehicular entrance and are 7 storeys over undercroft parking. Each building has a gross floor area of 3,695 sq m and comprises 48 no. apartment units (total 96 no. apartment units) including, 33 No. 1-beds, 1 No. 2-beds/3 persons and 14 No. 2-beds/4-person units.

Block D

Block D is located to the west of the site and is 7 storeys over basement level car park. The building has a gross floor area of 4,325 sq m and comprises 52 no. apartment units, comprising 25 No. 1-beds, 26 No. 2-beds/4-persons, 1 No. 3-bed unit.

Block E

Block E is located in the centre of the southern part of the site and is 9 storeys over a basement level car park. The building has a gross floor area of 5,946 sq m comprising:

- 66 No. apartment units including 40 No. 1-beds, 26 No. 2-beds/4-person units;
- Residents' support facilities including a concierge/lobby (75 sq m);
- Residents' amenities (gym, yoga studio, residents' lounge/co-working space; lobby 485 sq m) at Ground Floor Level;
- Residents' amenities (bookable rooms 42 sq m) at First Floor; and
- Residents' amenities (residents' lounge; games room; screen room; private lounge; kitchen 350 sq m) with roof terrace (106 sq m) at Eighth Floor Level.

Block F and G

Block F and G are the central blocks flanking the main lawn area creating a formal setting to Dalguise House. Each building is 7 storeys over basement level car park and has a gross floor area of 5,469 sq m. Each building contains 76 No. apartment units (total 152 no. apartment units) including 46 No. 1-beds, 5 No. 2-beds/3-persons, 23 No. 2-beds/4-persons, 2 No. 3-bed units.

Block H

Block H is located at the southern end of the site and forms a courtyard with the walled garden. The building is 5 storeys over lower ground and has a gross floor area of 4,252 sq m. The building contains 54 No. apartment units including 30 No. 1-beds, 1 No. 2-beds/3-persons, 21 No. 2-beds/4-persons, 2 No. 3-bed units.

Block I (1 & 2)

Block I (1 & 2) are mews style apartment buildings located at the southern end of the site behind the Walled Garden. Each building is 3 storeys with a gross floor area of 1,038 sq m.



Each building comprises 12 No. apartment units including 3 No. 1-beds, 3 No. 2-beds/3 persons, 6 No. 2-beds/4-person units.

Block J

Block J is a mews style apartment building located at the southern end of the site to the west of the Garden Wall. The building is 4 storeys in height and has a gross floor area of 1,844 sq m. It comprises 20 No. apartment units including 13 No. 1-beds; 1 No. 2-bed/4-persons, 6 No. 3-bed units.

Dalguise House and other Historic Buildings

The development includes the refurbishment, adaptation and reuse of:

- the two storey Dalguise Lodge (Entrance Lodge) (GFA 55 sq m) comprising residential support facilities;
- a single storey Gate Lodge (GFA 55 sq m) comprising 1 No. 1-bed unit; and
- two storey Coach House and single storey Stableman's House (GFA 319 sq m) to provide 3 No. apartment units (1 No. 1-bed, 2 No. 2-bed/4 persons).

The refurbishment, adaptation and change of use of Dalguise House (GFA 799 sq m) from a single residential dwelling to provide:

- 3 No. apartment units (2 No. studios and 1 No. 2-bed/3 person) at First Floor Level;
- a restaurant/cafe at Lower Ground Floor Level (GFA 273 sq m);
- and residents' amenities at Ground Floor Level (library, residents' lounge, events space, bar/bookable room, 157 sq m).

Works to the existing structures include:

- removal of existing internal partitions and doors, alterations to internal layout including provision of new partitions and doors to Dalguise Lodge (Entrance Lodge);
- the removal of existing internal partitions and doors, and alterations to internal layout including provision of new partitions and doors to Gate Lodge (Brick Lodge);
- replacement of existing roof, windows and doors, non-original mezzanine floor and stairs of Coach House, creation of new internal and external opes, reconstruction of chimney, construction of new stairs, provision of new internal partitions and doors, replacement of the demolished single storey structure to south of Coach House with a 42 sq m single storey extension, including construction of a link between Coach House and Stableman's House;
- replacement of existing roofs, windows, doors, creation of new external opes and provision of new internal partitions and doors to Stableman's House;
- restoration of Coach House yard walls;
- removal of security bars from windows, internal partitions, doors, two secondary staircases, non-original fireplaces; and the reconfiguration of internal layout including introduction of new partitions, doors and fireplaces, in-fill of former secondary staircases; removal of an existing window at rear facade of Lower Ground Level, alterations to ope and replacement with a new external door; reinstatement of external wall fabric in place of demolished lean-to at the rear facade; and removal of external door to swimming pool on eastern facade and closure of ope; and creation of new external ope at Lower Ground Floor rear facade, provision of external plant (connected to the new ope by ducting), waste storage area, water tank at surface level adjoining the western facade, enclosed within a screen at Dalguise House).



Non-Residential Development

The proposed development will deliver non-residential facilities consisting of the proposed café/restaurant (273 sq m) located at the Lower Ground Floor of Dalguise House at the center of the site, and the childcare facility (540 sq m), located at the ground and first floor of Block A at the Purbeck entrance to the site.

The proposed non-residential uses will serve both the residents of the proposed development and be accessible to the existing community.

Other Elements

The development will also consist of the:

- the construction of a garden pavilion;
- the provision of balconies and terraces, communal open space including roof gardens, public open spaces, hard and soft landscaping, landscaping works including the removal of trees, alterations to boundaries;
- the provision of: 227 No. car parking spaces (148 No. at basement level; 20 No. at undercroft; and 59 No. at surface level);
- motorbike spaces;
- level changes;
- ESB Substations (at Block D and Block H);
- plant areas;
- waste storage areas;
- provision of cycle parking (including cargo bike spaces) at basement and surface level;
- signage/wayfinding; and
- all ancillary site development works above and below ground.

Provision is made in the landscaping proposals for potential future pedestrian and cycle connections that would facilitate permeability through the site boundaries with the residential estates of Arundel and Richmond Park, respectively, and the former Cheshire Home site, subject to agreement with those parties and/or Dún Laoghaire-Rathdown County Council, as appropriate.

The EIAR and application documentation provides detailed information in respect of open space provision, landscaping, construction management, infrastructure and utilities.



3.0 CONSIDERATION OF ALTERNATIVES

Alternative Locations

The *Dún Laoghaire-Rathdown County Development Plan 2022-2028 (Development Plan)* was adopted by the Local Authority on 21st April 2022 and is the statutory plan governing the subject site.

The subject site is zoned 'Objective A' in the *Development Plan* which has an objective 'to provide residential development and/or protect and improve residential amenity.'

The planning policy provisions at all tiers support the redevelopment of the subject lands in line with the above objective, having regard to the land zoning objective, the location of the lands in an existing built up area and the scale of the lands which provides capacity for a significant number of new homes. As such, from a planning perspective, the site is considered appropriate for a development of the proposed nature and will deliver a large quantum of housing, in line with an identified national priority.

In addition to the above planning considerations, the following environmental considerations were undertaken in respect of the subject lands in relation to their suitability for a higher density residential development:

- Proximity to public transport and pedestrian and cyclist infrastructure;
- Proximity of surrounding local road network to regional and national roadwork (for construction traffic access);
- Availability of social infrastructure and services;
- Built up/ urban surrounding landscape (townscape);
- Availability of utilities, water, electrical and gas infrastructure;
- Proximity to existing population.

In summary, having regard to the environmental considerations above, in combination with the suitability of the site, the proposed location is considered to be appropriate for a development of the proposed scale and nature.

For this reason, alternative locations were discounted.

Alternative Design and Layout

A number of alternative designs were assessed by the team at the initial design stage, which are described in full detail in the accompanying *Design Statement*, prepared by Reddy Architecture + Urbanism. Each option assessed took into consideration site environmental sensitivities.



Alternative Design 01 – ABP. Ref. 306949-20 (Previously Permitted SHD Scheme)

The previously granted scheme on the subject site (ABP. Ref. 306949-20) comprised the demolition of an existing dwelling and other structures, conversion of Dalguise House (a Protected Structure) to 2 No. houses, construction of 276 No. apartments (comprising 8 No. blocks, ranging in height from 5 to 9 storeys), 22 No. houses, creche and associated site works. The Board approved this scheme in August 2020 but was decision was quashed. ultimately quashed.

At the early design stage, the Design Team reviewed the key elements of the SHD scheme which were considered to be acceptable by the Board during its assessment. Although the basic layout of the scheme, in terms of layout and orientation, was largely considered to fit comfortably within the site, the urban landscape and its setting, there were elements which the Design Team considered could be improved as part of the subject LRD proposal. For example, the provision of an extensive basement across the scheme would require a substantial excavation and loss of mature trees which could be further mitigated. The overall vehicular strategy was considered car dominant and the pedestrian / cyclist environment could be adjusted and improved. The position of some residential blocks, in terms of proximity to one another, had the potential to give rise to impacts on proposed residential amenity and disrupt views to Dalguise House. Some design elements of the residential units could be further improved and further efforts could be made to retain a number of trees on site which are in good health.

The Design Team were of the view that the core design components of the permitted scheme responded positively to the character of the site and that of the surrounding context. For example, the overall composition of the linear blocks located centrally in the site allowed for a layout that was primarily east-west in orientation, thereby creating minimally interrupted views to Dalguise House from the internal access road. The layout of the blocks also allowed for the creation of a feature plaza to the front of the Protected Structure, making the house and it's setting a focal point within the overall proposed scheme. The pavilion style block to the north of the site was considered an appropriate in terms of scale and form, ensuring a compatible relationship with nearby existing properties. The distinct character zones proposed across the site allowed for the creation of pedestrian linkages, formal lawns, and extensive landscaping. Another positive design intervention was the retention of the walled garden elements for the use of residents and visitors.

The strengths and weaknesses of the permitted scheme were considered in the context of the factors listed at Article 3(1) of the EIA Directive. This includes landscape and visual impact and architectural and cultural heritage considerations in respect of Dalguise House. The improvement of the pedestrian and bicycle environment and connection into the surrounding area was considered in respect of population and human health, including considerations relating to reduced transport emissions and associated noise and air impacts. The potential for the loss of mature trees was considered in the context of biodiversity related impacts. Importantly, the car parking quantum was considered in relation to potential impact from roads and traffic perspective.



Alternative Design 1 was ultimately ruled out due to issues with potential impacts on residential amenity, and impacts on the historical elements associated with the Protected Structure and unit mix. The topography of the site and a condition included as part of the planning permission was also deemed to be an issue and would ultimately result in a further number of mature trees needing removed and further reduction in open space.

Alternative Design 02 – Scheme presented at LRD Meeting (Section 247)

The Design Team brought forward the positive aspects of permitted SHD scheme and comprised the full restoration of the 4 No. existing structures on site, including the change of use of Dalguise House to Residential at First Floor Level, restaurant/cafe use at Lower Ground Floor Level and residents' amenities at Ground Floor Level. The proposal also comprised the construction of 482 No. apartments (comprising 11 No. blocks, ranging in height from 3 to 9 storeys).

The overall design changes from the SHD scheme included, in summary, the provision of a centrally located basement, repositioning of blocks (minimising negative impacts on existing trees, enhancing the setting and views to Dalguise House and improving daylight levels to residential units), creation of 5 No. distinction character areas relocation of creche and introduction of additional outdoor amenity space.

From an environmental perspective, this scheme was the subject of detailed considerations, including the introduction of a significant quantum of new development to an existing residential area, including new homes, commercial uses and public open space. Ultimately, the scheme presented at the LRD Meeting was amended to address the planning related concerns raised by Dún Laoghaire Rathdown County Council. However, the Design Team gave further consideration in respect of environment factors as set out in Article 3(1) of the EIA Directive.

Alternative Design 2 was ultimately discounted from a traffic and transport perspective as it had the potential to generate a notable number of additional traffic movements and the provision of one primary vehicular access point. It was further considered that, from a biodiversity perspective, the potential loss of trees could be further mitigated through minor revisions to the site layout plan.

Alternative Design 03 – Application Stage LRD Scheme

The views and comments provided by Dún Laoghaire Rathdown County Council at the LRD Meeting were fully considered by the Design Team. The 'as submitted' planning application (Reg. Ref. LRD22A/0930) comprised the full restoration of the 4 No. existing structures on site, including the change of use of Dalguise House to Residential at First Floor Level, public restaurant/cafe use at Lower Ground Floor Level and residents' amenities at Ground Floor Level. The proposal also comprised the construction of 491 No. apartments (comprising 11 No. blocks, ranging in height from 3 to 9 storeys).

In summary, the design changes made on foot of comments provided at the LRD Meeting included improvement of the site entrance and relocation of a quantum of car parking spaces to the basement level, provision of a new podium (improving overall permeability and



connectivity), reduction in massing and minor reordering of blocks to improve the visual setting of Dalguise House, improvement of communal amenity areas, additional design intervention to the Coach House, improvement of the overall landscaping strategy (with detailed inputs from the ROD Consulting Engineers and METEC Consulting Engineers), including the provision of additional tree planting, and increase in the bicycle parking provision. Changes made to alleviate traffic and transport concerns included the diversion of traffic from Purbeck to the basement level (also avoiding tree removal) and provision of further traffic calming measures, including a two-way traffic flow system.

Alternative Design 03 was the preferred option as it was deemed to have addressed many concerns in the context of the environmental factors listed in Article 3(1) of the EIA Directive. The option was ultimately ruled out as a result of the Request for Further Information issued in January 2023 by the Planning Authority which required further amendments were needed to improve the scheme.

Alternative Design 04 – The Proposed Project on foot of Request for Further Information

The Planning Authority issued a Request for Further Information in January 2023. The Request for FI sought additional information in respect of 29 No. Items, which resulted in revisions to the proposed development.

This iteration also comprises 11 no. new apartment blocks ranging from 3-9 storeys and the full restoration of 4 existing structures of which the only structure identified in the Development Plan as a protected structure is Dalguise House, which is being converted into Residential at level 01, residents' amenity at ground level and a public F+B offering at lower ground level.

The Key statistics for this iteration are:

- 493 Apartments total
- 227 Car Parking Spaces
- 971 Bicycle spaces
- 54% Dual Aspect
- 22% Site Coverage
- 1.13 Plot Ratio

The key design changes from the previous iteration are as follows:

- The Pedestrian route from Purbeck to the main avenue has been further updated to widen the stairs and provide a more generous space, a lift accessible from the outside of Block A has been provided as an alternative to these stairs.
- Block A has been amended in order to improve arrival to the site, updates include: the childcare facility entrance and fenestration; the design of the façade/windows now consists of single height punched windows (rather than double height windows); and the tone of the penthouse.
- Block B & C have been amended, updates include: the design of the façade/windows now consists of single height punched windows (rather than double height windows); the tone of the penthouse; a new access route to the amenity space has been added at Purbeck level, which will also facilitate access for cyclists to the undercroft cycle parking.
- The basement car park entrance has been realigned to be located under Block B.



- Block D includes 2 no. extra residential units at Ground Level in place of the space previously taken up by the (now redirected) vehicular access to the basement car park.
- Block E has been amended, updates include: revisions to the façade to provide a more formal façade to Dalguise House, with a stone plinth element added; alterations to glazing; and tone change at penthouse level.
- Blocks F and G have been updated to include: stone plinth at the ground floor; new stone corner in lieu of brick to create a more formal response to the central open space; and tonal change at penthouse level.
- Block J has been amended to provide a second entrance which allows for level access from the south, as a result a Ground Floor 3-bed unit has become a 2-bed unit.
- Brick Lodge has been amended to retain the chimney and chimney breast previously proposed to be removed.
- Dalguise House will retain the existing external finish, plant for the café/restaurant has been added at lower ground, and a timber screen is proposed at ground level to the south and west to screen the plant.
- The chimney at the Brick Lodge is to be retained.

Whilst the overall design principles remain the same, several overall positive improvements were made from a heritage, architecture, urban design environmental and landscaping perspective.

Alternative Processes

Given the residential nature of the scheme, it is not envisaged that any alternative processes could have been followed in respect of the assessment of environmental impact. It is therefore concluded that the consideration of an alternative process is not considered relevant to this EIAR.

4.0 POPULATION AND HUMAN HEALTH

4.1 Introduction

This chapter has been prepared to assess the likely impacts associated with Human Health for the proposed development. In accordance with the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) and European Commission (EC), Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017) this chapter has considered the *“existence, activities and health of people”* with respect to *“topics which are manifested in the environment such as employment and housing areas, amenities, extended infrastructure or resource utilisation and associated emissions”*.

4.2 Methodology

The EPA EIAR Guidelines (2022) advises that there is no specific guidance on the meaning of the term Human Health issued in the context of Directive 2014/52/EU. The EPA Guidelines (2022) advises in an EIAR, *“the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil etc.”*

The assessment of other health and safety issues that are carried out under other EU Directives are also relevant. These may include reports prepared under the Industrial Emissions, Waste Framework, Landfill, Strategic Environmental Assessment, Seveso III, Water Framework Directive, Floods or Nuclear Safety Directives. In keeping with the requirement of the amended Directive, an EIAR should take account of the results of such assessments without duplicating them.

Issues examined in this chapter include demography, population, employment, social infrastructure, landscape, amenity and tourism, natural resources, air quality, noise and vibration, material assets, traffic and health and safety.

The assessment of significance is a professional appraisal based on the sensitivity of the receptor and the magnitude of effect.

4.3 Baseline Development

The Proposed Development site is located in County Dublin, and in the electoral district of Blackrock-Monkstown (ED 5012). The area selected for the assessment of the impact on human health has been defined as the electoral division (EDs) of Blackrock-Monkstown, Blackrock-Carysfort (ED 5009), Blackrock-Newpark (ED 5013), Blackrock-Seapoint (ED 5014), Blackrock-Stradbroke (ED 5015), Blackrock-Templehill (ED 5016), Dun Laoghaire-Monkstown Farm (ED 5045), Dun Laoghaire-Mount Town (ED 5046) and Dun Laoghaire-Salthill (ED 5051) and County Dublin.

The site is located within the Eastern and Midlands Region, as defined by the nomenclature of units for territorial statistics (NUTS) developed by Eurostat. The Eastern Midlands Region comprises of the Counties of Dublin, Wicklow, Kildare, Laois. Offaly, Westmeath, Meath Longford and Louth.



The site location is within the ground of Dalguise House (Protected Structure RPS No. 870), Monkstown Road, Monkstown, Blackrock, County Dublin, A94 D7D1 (and the lands including A94 N3A1 residential garage; A94 R9T1 Gate Lodge; A94 TP46 Dalguise Lodge (No. 71 Monkstown Rd); A94 V6V9 White Lodge); and on-street car parking in front of Nos. 6 and 7 Purbeck (A94 C586 and A94 HT99, respectively). The proposed development site occupies approximately 3.58 hectares.

4.4 Potential Impacts of the Proposed Project

4.4.1 Construction Phase

There will be a *slight* and *positive* effect on local business with the limited presence of construction workers using local facilities during the construction phase.

The construction phase is considered to have the potential to have a *slight-profound, permanent and negative* impact on the architectural heritage resources on the site, with the exception of a potential *moderate* and *positive* impacts on modern buildings.

There is a direct hydrological pathway to Dublin Bay and Seapoint Beach via the Stradbroom Stream to the north of the proposed development site. there is up to a *moderate* risk of a *temporary* impact without mitiga

tion on Stradbroom stream, which would result in an impact on local amenity, i.e. Seapoint Beach. It is noted, there is *no possible impact* on water quality status in Dublin Bay due to low contaminant loading and attenuation and dilution near source area.

The main potential impacts on human beings associated with the proposed development will be in relation to air quality, noise and visual effects during the construction stage. The potential impacts are assessed within the corresponding chapters of this EIA Report and are summarised below. There is potential for *temporary, significant* and *negative* impacts on human health in relation to noise during the construction phase of the proposed development. There is also potential for *short-term, slight* and *negative* impacts in relation to air quality and visual alteration, respectively, on human health during the construction phase of the proposed development.

It is expected the magnitude of construction stage landscape/townscape impacts will be *negative, moderate* and *short-term* at the closest receptors.

4.4.2 Operational Phase

The Proposed Development will significantly reduce the pressure on local housing supply, while providing high quality housing which will have a *slight, positive, long-term* impact on the wellbeing of the wider population, outside of the study area, wishing to move into the area.



There will be a ***moderate, positive, long-term*** impact on local businesses during the operational phase due to the residential nature of the scheme and the increase in people requiring the use of facilities in Monkstown and surrounding areas.

Air dispersion modelling of traffic emissions has shown that levels of all pollutants are below the ambient air quality standards set for the protection of human health. It can be determined that the impact to human health during the operational stage is ***long-term, negative and imperceptible***.

In the absence of mitigation there is potential for a reduction in water quality in the Stradbrook Stream which would be considered to constitute a ***permanent moderate*** impact at the local level. Pollutants entering the Stradbrook Stream have the potential to lead to ***negative, moderate, short-term and permanent*** impacts at Nationally, European and Internationally Designated sites.

It is expected the magnitude of operational stage landscape/townscape impacts will be ***negative-neutral, moderate-slight and long-term*** at the closest receptors.

4.5 Residual Impacts (post-mitigation)

The construction phase is considered to have a ***moderate-significant, permanent and negative*** impact on the architectural heritage resources – setting, Dalguise House, Vinery/Greenhouses, Walled Garden and, ***moderate*** and ***positive*** impact on the main circulation routes, Gate Lodges, Modern Buildings and Stable Yard & Buildings.

In terms of noise and vibration during the construction and operational phases, it is not expected that the vibration thresholds set out in BS 5228 will be exceeded and therefore it is not expected that significant impacts will occur. It is expected that construction phase activities will likely be above the construction noise significant thresholds at the closest nearest sensitive locations. There will be a ***negative, moderate-significant and short term*** noise impact at the nearest sensitive locations during the construction phase. As the noise impacts associated with the construction phase will be temporary to ***short-term*** in duration and any elevated levels of noise will be of limited duration, the resultant impact to human health is ***not significant***. There will be no residual impact to human health arising from noise and vibration impact during the construction or operational stage.

In terms of air quality (dust), the mitigation measures that will be put in place at the proposed development will ensure that the impact of the proposed development complies with all ambient air quality legislative limits and therefore the predicted impact is ***short-term, negative and imperceptible*** with respect to the construction phase and ***long-term, negative and imperceptible*** with respect to the operational phase in terms of human health impacts. There will be no residual impact to human health arising from air quality impact during the construction or operational stage.

It is predicted that there will be ***no likely significant effect*** with regard to the construction or operational phase on the Stradbrook Stream which may result in impacts to Seapoint Beach (local amenity).

There will be no residual significant impact to human health arising from additional traffic.



There will be no significant adverse impacts with respect to socio-economic factors, land-use, or the amenity value potential of the area. All necessary mitigation measures will be put in place to ensure the health and safety of all site personnel.

All other environmental aspects relating to the human environment which could have an adverse impact on the local population such as soils, water and visual impacts both operationally and during construction are addressed in the relevant chapters of this EIAR.



5.0 BIODIVERSITY

5.1 Introduction

The process of identifying, analysing and evaluating the potential impacts of the Dalguise LRD project (“the proposed development”) on the topic of Biodiversity, i.e. habitats, species and designated sites, was undertaken in accordance with guidance on ecological and environmental survey and assessment provided by the Heritage Council, the Environmental Protection Agency, Transport Infrastructure Ireland and the Chartered Institute of Ecology and Environmental Management. These guidelines informed the planning and conducting of field survey work, and the analysis and evaluation of the potential impacts of the proposed development on Biodiversity.

5.2 Methodology

A desk study was undertaken to establish the “zone of influence” of the proposed development, i.e. the geographical area over which any effects are likely to be significant, and to examine any recent or historical records of features of ecological significance in this area, including any sites designated for nature conservation at the national or international level. As part of the desk study, statutory consultees and relevant stakeholders, e.g. the National Parks & Wildlife Service, were consulted. Consultees were invited to submit observations in relation to ecology and nature conservation.

Field survey work carried out to establish the ecological baseline included multidisciplinary walkover surveys of the development site and an appropriate buffer zone around the site to describe and map the habitats, species, and evidence of species present. Habitats were classified and mapped in accordance with guidelines published by the Heritage Council.

Dedicated surveys for rare and protected flora and fauna, as well as invasive alien species, were also undertaken during the optimal survey seasons. Following the desk study and field surveys, Key ecological receptors (KERs) were identified. These are features of ecological significance at the local (higher level) scale or above and that should be a material consideration in the decision-making process. The biodiversity chapter analyses the potential impacts of the proposed development on the Key ecological receptors and characterises these impacts in terms of their magnitude, extent, duration, frequency and reversibility, thereby evaluating their significance on a geographical scale. A total of eight KERs were identified within the study area: European Designated Sites, Nationally Designated Sites, Internationally Designated Sites, Linear Woodland, Bats, Birds, the Stradbroke Stream and Invasive Species. Each Key Ecological Receptor was evaluated in terms of its conservation value on a geographical scale.

5.3 Baseline Environment

It was determined that 12 European sites occur within the “zone of influence”, namely the South Dublin Bay Special Area of Conservation (SAC), the South Dublin Bay and River Tolka Estuary Special Protection Area (SPA), the North Bull Island SPA, the North Dublin Bay SAC, the Baldoyle Bay SAC, the Baldoyle Bay SPA, the Dalkey Islands SPA, the Rockabill to Dalkey Island SAC, the Howth Head Coast SPA, the Howth Head SAC, the Ireland’s Eye SPA and the Ireland’s Eye SAC.



Other internationally designated sites including the Sandymount Strand/Tolka Estuary Ramsar site, the North Bull Island Ramsar site, the Baldoyle Bay Ramsar site, the North Dublin Bay Marine Protected Area (MPA), the North Bull Island Wildfowl Sanctuary, the Dublin Bay UNESCO Biosphere Reserve and the Dublin Bay Important Bird Area (IBA) have connectivity to the proposed development. Some of these designated sites refer to the same areas. Seven nationally designated sites: the Baldoyle Bay proposed Natural Heritage Area (pNHA), the Howth Head pNHA, the Ireland's Eye pNHA, the North Dublin Bay pNHA, the South Dublin Bay pNHA, the Dalkey Coastal Zone and Killiney Hill pNHA, and the Dolphins, Dublin Docks pNHA lie within the "zone of influence."

The proposed development site is located approximately 300 m to the west of Monkstown Village and 240 m south of Seapoint Beach. The site is 3.58 ha in area, predominantly rectangular in shape and until very recently was in use as a private dwelling.

The proposed development site is bordered and divided by a network of mature treelines and linear woodlands. It is bounded to the south, east and west by residential developments and to the north by the Stradbroke Stream, residential developments and Monkstown Road. The surrounding area is dominated by suburban residential development. It is within the catchment of the Stradbroke Stream, which flows east-west and eventually discharges into Dublin Bay. The Stradbroke Stream is characterised by artificial embankments along most of its length. The stream is highly modified and is culverted until it reaches its outfall at the west pier in Dún Laoghaire. The site contains good quality habitat for bats and bird species. An established heronry exists in the mature trees along the western site boundary.

5.4 Potential Impacts of the Proposed Project

5.4.1 Construction Phase

The key potential ecological impacts associated with the construction phase include habitat loss, habitat fragmentation, habitat degradation, disturbance to species, direct mortality, and the spread of invasive species.

The construction of the buildings, roads, paths, amenity areas, car parking and other infrastructure will result in habitat loss, fragmentation and degradation. The effect of these impacts will be a reduction in overall habitat quality within the footprint of the proposed development. Disturbance will occur during the construction phase of the proposed development as a result of noise, lighting, vibration and the presence of people and vehicles. Direct mortality is possible as a result of site clearance, tree felling and vegetation removal.

5.4.2 Operational Phase

The key potential ecological impacts associated with the operational phase include habitat fragmentation, habitat degradation, disturbance to species and direct mortality. Disturbance will occur during the operational phase of the proposed development as a result of noise, lighting, and the presence of people and vehicles. Direct mortality is possible as a result of landscape maintenance works and through collision with windows.



5.5 Residual Impacts (Post-mitigation)

The assessment determined that, in the absence of mitigation, the construction and operation of the proposed development had the potential to have significant negative effects on the Key ecological receptors. In light of this finding, appropriate mitigation measures were proposed, aimed at eliminating or minimising these effects. Mitigation measures proposed include construction phase, general and specific measures designed for each Key Ecological Receptor. Key mitigation measures include the timing of works to avoid impacts on the key ecological receptors, the avoidance of sensitive habitats, the landscaping and lighting design, which have been cognisant of the key ecological receptors, and implementation of water quality protection measures.

In addition to mitigation of the likely ecological effects on the proposed development, the biodiversity assessment also proposed a number of ecological enhancement measures aimed at having a positive impact on ecology, wherever possible. These include the incorporation of a permanent pond into the drainage design, the creation of ecopoles and the installation of bat and bird boxes across the proposed development.

In the case of all key ecological receptors, it was found that any residual effects following the application of the proposed mitigation measures would not be significant at any geographical level. With the implementation of the proposed mitigation measures described in the EIAR, there will be no significant residual effects on biodiversity in the zone of influence.



6.0 LAND, SOILS, GEOLOGY AND HYDROGEOLOGY

6.1 Introduction

The likely significant effects of the proposed Dalguise House Large-Scale Residential Development on land, soils, geology, and hydrogeology were assessed as part of the EIAR. The assessment was made with regard to the design of the proposed development, the construction and finally the operation.

6.2 Methodology

With regards to soils, geology and hydrogeology, the assessment presents the baseline conditions of these features based on readily available information and data provided during the course of the Project and determines how the construction and operation of the Project will cause potential impact to these features. The impact assessment ranking methodology and terminology used in this section was conducted in line with Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes (NRA, 2009).

6.3 Baseline Environment

Teagasc (GSI 2022) data indicates that soils in the study area are generally mineral soils, largely derived from mainly acidic parent materials. The principal subsoil type in the study area is gravels derived from limestone (GLs), and the underlying subsoil namely made ground.

Site Investigations revealed stiff boulder clay generally ranging from 5m to 10m on top of strong Granite. Topsoil was encountered and was present to a maximum depth of 0.30m below ground level. Made ground deposits were encountered in some areas, and cohesive deposits were encountered beneath the topsoil or made ground.

Laboratory Testing found that the soil material is above the inert limits as outlined within the European Council Directive 1999 131/EC Article 16 Annex II. The Waste Characterisation Assessment (WCA) classed all soils as 'non-hazardous'.

The GSI classifies the bedrock aquifer beneath the subject site as a 'Poor aquifer (PI), with bedrock which is generally unproductive except in local zones'. It would be classed as having a 'moderate vulnerability'. The groundwater body in the area (IE_EA_G_003) is presently classified under the Water Framework Directive (WFD) status 2010-2015 as 'good' and the risk score as 'not at risk' (EPA, 2022).

6.4 Potential Impacts of the Proposed Project

6.4.1 Construction Phase

A number of potential construction phase impacts were reviewed. The most significant however was potential impacts of accidental leaks and spills and how this may impact upon locally important bedrock and/or gravel aquifer. Works during the construction of the scheme could pose a threat to the quality of groundwater bodies within the study area chiefly through



unplanned events such as leaks/spills/runoff/accidental release or escape of fuels, oils and lubricants, bulk liquid cement, contaminated leachate.

A Conceptual Site Model (CSM) was prepared, evaluating the potential impact of accidental spills upon the underlying aquifer. From this, a minor to moderate risk of localised discharge to ground of contaminated water was found, whereby no possible impact on the status of the aquifer was predicted due to volume of leak indicated, natural attenuation within overburden and low potential for migration due to low connectivity of fracturing within the granite aquifer (Poor Aquifer).

Therefore, in line with the NRA 2009 Guidelines, the importance of these features was considered 'medium' and the magnitude of impact for works 'small adverse' due to the volumes of potential spill, short-term nature of the effect and nature of the aquifer (Poor Aquifer with low connectivity). Consequently, the overall significance rating was 'slight'.

Other impacts identified related to the requirement for significant excavation of soil/subsoil for foundation and ground level construction which may increase the vulnerability of the underlying bedrock and hydrogeology to risk of potential soil erosion, transportation, and contamination. The importance of these features was already assigned as 'medium' and the magnitude of impact 'small adverse' due to the short-term duration of impact. Consequently, the overall significance rating was considered to be 'slight'.

6.4.2 Operational Phase

Operational phase impacts were identified and related largely to the leak of petrol/ diesel fuel from individual cars in parking areas whereby contaminated run-off has potential to seep into bedrock and the underlying aquifer system. However, whilst the importance of the feature was considered 'medium', the risk of impact was considered to be 'low', on account of the low contaminant loading and short-term nature of any potential discharge. Therefore, in line with the NRA 2009 Guidelines, the overall significance rating was considered to be 'imperceptible'.

6.5 Residual Impacts (post-mitigation)

Prior to mitigation, the two impacts identified were assigned as 'slight' largely on account of the 'medium' importance rating of the receptor and moderate risk of localised contamination and soil vulnerability. However, the implementation of mitigation measures during the construction phase, along with good site management and construction practices will eliminate any significant impact on the environment and reduce significance to 'imperceptible'.

The only identified operational impact was already considered to be 'imperceptible' in nature, relating to the potential for accidental leakage / spillage / contaminated run-off from vehicles in the parking area of the development. With the design and installation of permanent mitigation measures for the operational phase (i.e., petrol interceptors), all negative impacts on the soil and geological environment are eliminated.



7.0 HYDROLOGY – SURFACE WATER

7.1 Introduction

The likely significant effects of the proposed Dalguise House Large-Scale Residential Development on the local hydrology regime (surface water) were assessed as part of the EIAR. The assessment was made with regard to the design of the proposed development, the construction and finally the operation.

7.2 Methodology

The Hydrology – Surface Water Chapter was prepared in line with the suggested topics outlined in the EPA EIA Guidelines 2022, and for the assessment of impacts, the NRA (2009) Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

7.3 Baseline Environment

The proposed development site lies within the Liffey River and Dublin Bay Catchment (Catchment ID_09), and includes the area drained by the River Liffey and by all streams entering tidal water between Sea Mount and Sorrento Point, Co. Dublin. There is one watercourse in the study area, the Stradbrook Stream, flowing along the northern site boundary and is partially culverted along its route. The Stradbrook Stream Water Framework Directive (WFD) risk score and status is still under review, and whilst the stream is significantly culverted, the ecological status or potential is assigned as ‘moderate’ in 2013-2018. No chemistry monitoring data is available for the stream on the EPA database.

Direct hydrological linkages exist between the Stradbrook Stream and the Dublin Bay waterbody where a number of SACs and SPAs are situated, the closest of which is the South Dublin Bay SAC, and the South Dublin Bay and River Tolka Estuary SPA located approximately 400m and 450m respectively from the north boundary of the proposed development site. Dublin Bay has a WFD status (2013 – 2018) of ‘Good’ and a risk score of ‘Not at risk’. The ecological status of transitional and coastal water bodies during 2013-2018 for Dublin Bay is classed as ‘good’ (EPA, 2022).

The Office of Public Works (OPW) mapping shows that areas to the north-east of the site are predicted by surface water flooding and has records of flooding in Monkstown to the east of the site. The closest recorded event to the site caused flooding of the Carrickbrennan Road area in 2011. Flood Zone Mapping does not show any flooding (Flood Zone A / Flood Zone B) affecting the site or surrounding areas however, the northern extent of the site is shown to be an ‘Area of Flood Risk Concern’ for Fluvial – Surface Water (from the Stradbrook Stream).

7.4 Potential Impacts of the Proposed Project

7.4.1 Construction Phase

Construction phase impacts to surface waterbodies are possible from (i) Sedimentation from near-river material handling, (ii) spillage of hydrocarbons and other chemicals into the surface water environment, (iii) spillage of cementitious materials directly into the Stradbrook Stream



or be washed into it in run-off and (iv) mistreatment from on-site toilets and washing facilities provides for potential water quality impacts. Impacts largely relate to the reduction of surface water quality which may compromise their respective WFD statuses or cause effect to the Conservation Objectives of the nearby designated sites. They were assigned individually to the immediate receptor (Stradbrook Stream), to Nationally Designated Sites, to European Designated Sites and to Internationally Designated Sites. Significance of impact ranged from 'significant/moderate' to 'significant' pre-mitigation.

7.4.2 Operational Phase

Operational phase impacts were identified and related largely to the leak of petrol/ diesel fuel from individual cars in parking areas whereby contaminated run-off has potential to seep into bedrock and the underlying aquifer system, and from additional pressures incurred through discharge of sewerage from the development into the existing system (which will discharge into the Dublin Bay and associated designated sites). For the former, whilst the importance of the feature was considered 'medium', the risk of impact was considered to be 'low', on account of the low contaminant loading and short-term nature of any potential discharge. Therefore, the overall significance rating was considered to be 'imperceptible'. For the latter, no perceptible risk was found, as the peak effluent discharge from the site would equate to 0.096% of the licensed discharge at Ringsend WWTP and would therefore not impact on the overall water quality within Dublin Bay.

7.5 Residual Impacts (post-mitigation)

7.5.1 Construction Phase

Prior to mitigation, potential impacts to the surrounding waterbodies were considered to range from 'significant' to 'moderate' in most cases, largely on account of the designation status of the potentially affected waterbodies (nationally, European and internationally significant) located within the Zone of Influence of, and with hydrological connection to the proposed development. However, the implementation of mitigation measures during the construction phase, along with good site management and construction practices will reduce the significance of effect to 'imperceptible' in all cases, except where an accidental pollution event (i.e., spill) occurs. This will still result in a significant effect to the Stradbrook Stream, due to proximity to the potential spill source. A similar conclusion is made within the NIS prepared for the Project.

7.5.2 Operation Phase

With regards to the operational phase, the same residual impacts are assigned as with construction, with all effects being 'imperceptible' and resulting in no-change with the exception of accidental and once-off pollution events (i.e., spill) which would result in a significant effect to the Stradbrook Stream.



8.0 AIR QUALITY AND CLIMATE

8.1 Introduction

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality and climate associated with the proposed development at Dalguise House, Monkstown, Co. Dublin.

8.2 Methodology

Impacts to air quality and climate can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions.

Potential impacts to air quality during the operational phase of the proposed development are as a result of a change in traffic flows and volumes on the local road network. The changes in traffic flows were assessed against the UK Design Manual for Roads and Bridges (DMRB) screening criteria for an air quality assessment.

8.3 Baseline Environment

In terms of the existing air quality environment, baseline monitoring data available from similar environments indicates that levels of nitrogen dioxide, particulate matter less than 10 microns and less than 2.5 microns are generally well below the National and European Union (EU) ambient air quality standards.

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and compliance with European Union's Regulation 2018/842. The EPA state that Ireland had total GHG emissions of 60.76 Mt CO₂eq in 2022. This is 3.72 Mt CO₂eq higher than Ireland's annual target for emissions in 2022. The EPA predict that Ireland can comply with the GHG targets for 2021 – 2030 provided full implementation of the measures outlined within the Climate Action Plan and the use of the flexibilities available.

8.4 Potential Impacts of the Proposed Project

8.4.1 Construction Phase

There are a number of sensitive receptors in close proximity to the site at which dust impacts may occur. Provided the dust mitigation measures outlined in Appendix 11.2 of Chapter 11 are implemented, dust emissions are predicted to be short-term, negative and imperceptible and will not cause a nuisance at nearby sensitive receptors.

The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the proposed development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development will be short-term, localised, negative and imperceptible with respect to human health.



8.4.2 Operational Phase

Potential impacts to air quality during the operational phase of the proposed development are as a result of a change in traffic flows and volumes on the local road network. As stated previously, the changes in traffic flows were assessed against the UK Design Manual for Roads and Bridges (DMRB) screening criteria for an air quality assessment. The operational phase air quality modelling assessment determined that there is no potential for significant impacts as a result of traffic related to the proposed development. It can therefore be determined that the impact to air quality as a result of altered traffic volumes during the operational phase of the proposed development is negative, imperceptible and long-term.

The changes in traffic volumes associated with the operational phase of the development were not substantial enough to meet the assessment criteria requiring a detailed climate modelling assessment. The proposed development is not predicted to significantly impact climate during the operational stage and will not contribute significantly to Ireland's obligations under the EU Targets and emissions ceilings set out by Directive (EU) 2016/2284 *"On the Reduction of National Emissions of Certain Atmospheric Pollutants and Amending Directive 2003/35/EC and Repealing Directive 2001/81/EC"*. In addition, the proposed development has been designed to minimise the impact to climate where possible during operation.

As the National and EU standards for air quality are based on the protection of human health, and concentrations of pollutants in the operational stage of the proposed development are predicted to be significantly below these standards, the impact to human health is predicted to be imperceptible, negative and long term.

8.5 Residual Impacts (post-mitigation)

No significant impacts to either air quality or climate are predicted during the construction or operational phases of the proposed development.



9.0 NOISE AND VIBRATION

9.1 Introduction

AWN Consulting Limited has been commissioned to conduct an assessment of the likely noise and vibration impacts associated with the proposed residential development at Dalguise House, Monkstown, County Dublin.

9.2 Methodology

The noise impact assessment has focused on the potential outward impacts associated with the construction and operational phases of the proposed development on its surrounding environment.

9.3 Baseline Environment

The existing noise climate in the vicinity of the proposed development has been surveyed. Prevailing noise levels are primarily due to local road traffic. Noise levels measured on the site have been used in the assessment of potential impacts associated with the proposed development.

9.4 Potential Impacts of the Proposed Project

9.4.1 Construction Phase

During the main construction phase involving excavation, site clearance, building construction works, and landscaping, the assessment has determined that for construction works taking place close to the site boundaries, that the predicted noise levels will be above the construction noise criteria at the nearest sensitive properties. During periods of construction in these areas of the site it is predicted that short term significant impacts are likely.

9.4.2 Operational Phase

During the operational phase, the outward noise impact to the surrounding environment will include any additional traffic on surrounding roads and plant noise from the residential and amenity buildings as part of the development. The impact assessment has concluded that additional traffic from the proposed development on local roads will have an insignificant impact on the surrounding noise environment. Mechanical plant items will be designed to ensure any noise impacts during this phase will not exceed the recommended limit values.

9.5 Residual Impacts (post-mitigation)

Mitigation measures are recommended during the construction phase so that impacts are reduced. There is potential for significant impacts associated with the most intensive construction works and where works take place close to dwellings located adjacent to the site boundary.

Once plant items are designed to achieve the recommended limits, the resulting impact is expected to be of neutral, imperceptible and long-term effect.



10.0 LANDSCAPE AND VISUAL

10.1 Introduction

The Landscape and Visual chapter describes the townscape context of the proposed development and assesses the likely impacts of the scheme on the receiving environment, in terms of both townscape character and visual amenity.

Landscape/townscape assessment relates to changes in the physical environment, brought about by a proposed development, which may alter its character. **Visual Impact Assessment** relates to changes in the composition of views as a result of changes to the landscape/townscape, how these are perceived and the effects on visual amenity.

10.2 Methodology

Production of this Landscape/Townscape and Visual Impact Assessment involved:

- A desktop study to establish an appropriate study area and relevant landscape and visual designations in the *Dún Laoghaire Rathdown County Development Plan 2022-2028*;
- Fieldwork undertaken in April 2022 to study the receiving environment;
- Assessment of the significance of the landscape impact of the proposed development as a function of landscape sensitivity weighed against the magnitude of the landscape impact;
- Assessment of the significance of the visual impact of the proposed development as a function of visual receptor sensitivity weighed against the magnitude of the visual impact. The visual impact assessment utilises verifiable photomontages of the proposed development from a range of receptor locations within the surrounding public realm.

This document uses methodology as prescribed in the Institute of Environmental Management and Assessment (IEMA) and landscape Institute (UK) '*Guidelines for Landscape and Visual Impact Assessment*' (GLVIA-2013). It is also undertaken in accordance with the *Guidelines for Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022).

10.3 Baseline Environment

The site itself is that of Dalguise House, which is approximately 3.58ha in size with the protected structure of Dalguise House located south-centrally within it amongst extensive gardens, lawns and mature trees. The site is in the heart of Monkstown Valley which slightly lower lying than the lands that surround it. Most notably there is a small rise to the north in the direction of Monkstown Road, which runs along a low crest before the topography falls gently towards the sea at Seapoint Beach. To the east and west of the site are the meandering cul-de-sacs of the 'Richmond Park' and 'The Beeches' respectively. These mainly consist of mid-low density terraced and semi-detached dwellings surrounding small communal green areas. To the south, a line of generous proportioned detached houses from Brook Crescent back onto the wooded southern boundary of the site. The grounds of Stradbroke Rugby Club occupy much of the nearby land to the southwest.



The wider study area throughout the southern quarters consists of residential housing estates that have emerged over the last century with the notable ruins of Monkstown Castle located on land to the southeast of the junction of Carrickbrennan Road Castle park and Monkstown Avenue. The village core of Monkstown is located approximately 200m to the northeast of the site and to the north, the coast roads of Seapoint Avenue and Longford Terrace separate large period residences from the coastline. The intervening land is occupied by Seapoint linear park and Salthill / Monkstown DART station as well as the railway line that runs along the coast. The West Pier of Dun Laoghaire harbour occurs within the north eastern portion of the study area and is a popular recreational feature. Seapoint Beach, to the north of the site, is a popular bathing spot beneath one of the Martello towers that line the Dublin Bay Coastline

Dalguise House appears on the Ordinance Survey maps from the period 1888 – 1913 in a location formerly occupied by Richmond Cottage which was contained in the wider estate of Carrick Brennan Lodge. The village of Monkstown was formerly known as Carrickbrennan where a church had been built before the 8th century. Monkstown Castle was built in the 12 or 13th century and the land around Monkstown remained largely rural up until the 1800s, but containing large stately houses owned by merchants of Dublin.

10.4 Potential Impacts of the Proposed Project

10.4.1 Construction Phase

There will be permanent physical effects to the land cover of the site, which are not readily reversible following the construction stage. The open parkland landscape of the site will be changed to a high intensity residential development that will see many of the internal trees, gardens and lawn areas removed for basement excavation and replacement by circulation and storage areas. During the construction stage of the proposed development, which is estimated to take approx. 36 to 42 months, there will be intense construction-related activity within and around the site, including approach roads.

Construction stage impacts will be greatest as the emerging, scaffolding covered, apartment building shells rise into view for surrounding receptors and contribute negatively to views and townscape character. However, construction stage impacts on landscape/townscape character will be 'short-term' and are not deemed to be significant.

10.4.2 Operational Phase

The operational stage townscape impacts are a balance between the substantially increased scale and intensity of modern built development within a site that currently represents partly derelict underutilisation of a substantial, but hidden area of heritage open space that contributes to the general sylvan character of the landscape fabric, but less so to the overt landscape character of the local area. The proposed development allows for a rejuvenation and repurposing of the site and Dalguise House in a manner that secures its utility and relevance for decades to come and sets it within a campus-style urban form that benefits from the leafy character to be retained and supplemented. Given its location within the relatively low lying ground of Monkstown Valley and the degree of enclosure and screening by buildings and vegetation, the contribution of the proposed development to the townscape character of the wider study area is not strong as the scale of the development would suggest.



Eighteen viewpoints are utilised for the visual impact assessment and these represent a broad range of viewing distances and angles, viewing contexts and visual receptor types. The significance of visual impacts generally varies between Moderate-slight at five of the closer viewpoints, to Imperceptible, generally from more distant viewpoints where intervening screening limits or eliminates potential views of the proposed development. Only from VP6 (Richmond Park) is there an initial Substantial-moderate impact. This occurs in the Short term in both summer and winter. However, once the proposed, conifer-rich, boundary tree mix becomes more fully established over the Medium to Long term, the significance reduces to Moderate and then Moderate-slight respectively across all seasons. Aside from a lesser degree of screening, these new broadleaf / conifer mix is preferable to the overall sylvan setting than the dense/dark band of existing conifers that will be removed along the intervening boundary.

In all instances, the quality of effect was deemed to be on the Negative side of the spectrum i.e. Negative or Neutral-Negative as the upper levels of the proposed buildings will typically rise into view above intervening buildings and vegetation adding to the general scale and intensity of built form, but without the full design context. There are not considered to be any significant visual impacts.

In terms of cumulative impacts, there are a number of other large residential developments that are committed or planned within the wider area i.e. beyond the 1km radius TVIA study area. However, there are only two in the near vicinity that will have a material cumulative impact. Whilst they each contribute towards a trend for an increased scale and density of residential development in the area, there is relatively little intervisibility likely between the developments and cumulative effects are not deemed to be significant.

10.5 Residual Impacts (post-mitigation)

There are not any specific landscape and visual mitigation proposed and instead, relevant mitigation is embedded in the design of the proposed development and particularly landscape proposals which will see sylvan character retained and/or reinstated insofar as possible. Consequently, the landscape and visual assessment of 'Potential Impacts' accounts for embedded mitigation and potential impacts can be considered the same as 'Residual Impacts' in this instance.



11.0 CULTURAL HERITAGE AND ARCHAEOLOGY

11.1 Introduction

IAC Archaeology has prepared this chapter to assess the impacts, if any, on the archaeological and cultural heritage resource of the proposed development at Dalguise House, Monkstown, County Dublin.

11.2 Methodology

Research has been undertaken in three phases. The first phase comprised a paper survey of all available archaeological, historical, and cartographic sources. The second phase involved a field inspection of the proposed development area. The third phases comprises a programme of archaeological testing across the greenfield portions of the proposed development area.

11.3 Baseline Environment

The proposed development area lies within an extensive curtilage to the south of Monkstown Road and is surrounded by modern developments. The Stradbroke Stream (sometimes referred to as the Monkstown Stream), flows east-west through the development area at Drayton Close and abuts the northern extent of the Dalguise lands. The townland boundary between both Dunleary and Monkstown extends partially through the proposed development area and can be considered as possessing cultural heritage and archaeological potential. The demesne landscape associated with Dalguise House also possesses cultural heritage significance, being a post medieval designed landscape. The specific built heritage elements of the proposed development area and the designed landscape are detailed and assessed in Chapter 15 Architectural Heritage.

There are no archaeological sites located within the development area; however, there are seven recorded monuments within the 500m study area. The nearest of these sites consists of Martello tower (DU023-010), located c. 420m to the northwest.

A review of the Excavations Bulletin (1970–2022) has revealed that no investigations have been carried out within the proposed development area, although three investigations have taken place within the surrounding environs. All three investigations at Martello Tower, Carrickbrennan Graveyard and Monkstown Primary School failed to identify any features of archaeological significance.

Analysis of cartographic sources has revealed that the proposed development area itself has remained relatively unchanged from the post-medieval to modern periods. Historically the site is placed within the townland and parish of 'Monckstowne'. The site is located to the northwest of Monkstown Castle within open fields, with the Monkstown Stream passing through the site from east to west. The townland boundary between Dunleary and Monkstown divides the site along the trajectory of the Monkstown Stream. The site is mostly within the demesne of Richmond Cottage (Dalguise) and possibly a small part of the neighbouring Carrickbrennan Lodge to the immediate west. The development area passes through the demesne of Drayton Lodge specifically.



Analysis of aerial photographic record available for the area failed to identify any previously unknown archaeological features in the area. The site has remained within the landscape of Dalguise and Drayton Close with Stradbrook Stream running east to west through the development area. A field inspection has been carried out as part of the assessment which established that the demesne landscape depicted on the 1912 OS mapping survives largely intact, including the majority of the structural features, in varying degrees of preservation. No previously unknown features of archaeological potential were identified, with the exception of the general archaeological potential assigned to watercourses.

A programme of archaeological testing has been carried out across the greenfield portions of the development area, but nothing of archaeological significance was identified.

11.4 Potential Impacts of the Proposed Project

11.4.1 Construction Phase

There are no predicted impacts on any known archaeological remains or recorded monuments during the construction of the proposed development. It is possible that ground disturbances associated with the development, prior to the implementation of mitigation, may directly and negatively impact on small or isolated archaeological features or deposits that have the potential to survive beneath the current ground level (outside of the footprint of the excavated test trenches). Dependent on the nature, extent and significance of any such remains, impacts may be moderate to very significant in significance.

The townland boundary between Dunleary and Monkstown follows the trajectory of the Stradbrook Stream, which will be crossed by a new entrance and bridge into the proposed development area. Ground disturbances within the stream channel may result in direct, negative impacts upon buried archaeological remains or artefacts. Dependent on the nature, extent and significance of any such remains, impacts may be moderate to very significant in significance.

All topsoil stripping associated with the proposed development will be monitored by a suitably qualified archaeologist. If any features of archaeological potential are discovered during the course of the works further archaeological mitigation may be required, such as preservation in-situ or by record. Any further mitigation will require approval from the National Monuments Service of the Department of Housing, Local Government and Heritage.

Prior to the commencement of construction, an underwater wade survey will be carried out on the section of the stream to be affected by the construction of a new access bridge. This will be carried out under licence to the DoHLGH. Dependent on the results of the assessment, further mitigation may be required such as preservation in-situ or by record and/or archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the Department of Housing, Local Government and Heritage.

11.4.2 Operational Phase

There are no predicted operational impacts upon the archaeological or cultural heritage resource and as such no mitigation is required.



11.5 Residual Impacts (post-mitigation)

Following the completion of mitigation, there will be no residual negative impacts upon the archaeological or cultural heritage resource. There are no predicted residual impacts upon the archaeological heritage resource. This is due to the fact that no archaeological remains have been identified within the proposed development area and if any small or isolated remains are identified during the monitoring of construction works, these will be preserved either by record or in-situ.



12.0 ARCHITECTURAL HERITAGE

12.1 Introduction

This report has been prepared by Ciarán Mullarkey & Karl Pedersen of Mullarkey Pedersen Architects. Mullarkey Pedersen Architects are RIAI Accredited Grade I Conservation Architects. This report has been prepared to assess likely impacts, both direct and indirect, on protected structures and other heritage assets, following inspection of the site and surrounding urban context; architectural and historical research, including development chronologies; assessment of design proposal for the site.

12.2 Methodology

The Protected Structure and curtilage affected or likely to be affected by the development have been identified and described. This description takes into consideration four principal areas which define heritage value; a) Evidential value present as a physical record of past human activity; b) Historical value that illustrates the connection of past people or events to the present; c) Aesthetic value that provide sensory and intellectual stimulation; and d) Communal value that contributes to a collective experience or memory.

The heritage assets have been assessed in terms of their sensitivity to change, and the degree to which the proposed development will impose change on the assets, directly or indirectly. The understanding of the sensitivity to change and the degree of change probable allows a quantitative and qualitative determination of the likely impact on the heritage assets. Impacts are determined to be Positive, Neutral or Negative, and the degree of impact is established, ranging from Very Significant to Negligible.

Where negative impacts are noted as a possibility, mitigation measures to reduce the severity of the impact or eliminate it are identified. These mitigation measures include i) Control over the height of proposed structures in proximity to Heritage Assets, ii) The retention and enhancement of historic landscape, iii) a sensitive approach to interventions in historic fabric, and iv) enhancing public access to heritage assets.

12.3 Baseline Environment

Dalguise House was built in the early 19th Century at a time when Monkstown saw an influx of many of the city's more successful residents. Dalguise House was most probably originally a villa, a distinctive typology in Irish Architectural History, namely a country house with a defining relationship with the city, functioning as a retreat from the city but nonetheless very much part of it. The site later became subsumed within the massive wave of suburban development. Those features which have been identified as being of some importance, and susceptible to change by the Development, are:

1. *Dalguise Lodge/Entrance Lodge*
2. *Garden paths*
3. *Stables*
4. *Wall to Walled Garden*
5. *Vinery*
6. *Dalguise House*
7. *Gate Lodge & Brick Lodge*



12.4 Potential Impacts of the Proposed Project

The principal potential impacts to Heritage Assets from the developments are:

i) *Setting & Context*

The surrounding area has been much altered and subject to a policy of intensification of suburban development over the last 50 years, as evidenced by the immediately adjoining sites which were also once single houses on large landscaped plots. The site itself retains some elements of the 19th century layout, notably the carriage way, lawn, walled garden and stables. The Development will cause a significant overall change to the setting, which is currently almost rural in character. The proposed development includes 11 No. apartment buildings the tallest of which is 9 storeys, changing the setting from a secluded parkland setting to a more urban one. The apartment blocks are located at such a distance as to allow the historic structures to be viewed and understood in their totality. In addition, the masterplan retains the centrality of Dalguise House itself within the historic grounds. The primary historic routes will be retained and will provide new development with its ordering principal. The retention of these routes as the backbone of a large new development will preserve these routes into the future, and as such will result in positive effects on the heritage of these historic features

ii) *Lodges.*

The two historic Lodges (Dalguise Lodge/Entrance Lodge and Gate Lodge/Brick Lodge) form part of the curtilage of the Protected Structure & date from late 19th Century. The restoration of these structures, to best conservation practice, will enhance the conservation significance of the site. The removal of existing partitions and doors will have a minor negative impact.

iii) *Dalguise House*

The House has been subject to extensive renovation over many years and its presentation and fabric has been changed considerably. There will be no impact on the external presentation of Dalguise House. The historic fabric, windows, render, etc. will be refurbished or repaired as required to best conservation practice. Internally, the removal of partition walls in the basement will generate negative effects on the architectural heritage of the house, as will the division (reversible) of the two large bow ended rooms at first floor. The continued appropriate use of the house is a significant positive impact on the retention of the architectural heritage.

iv) *Vinery & Glasshouse*

The 19th century vinery has historical special interest, the 20th century glass house has none. Both buildings are to be demolished. This represents a moderate negative impact on the conservation significance of the site.



v) *Walled Garden*

The existing walled garden forms a significant element of the curtilage of a Protected Structure and it has retained its original form and fabric. The proposed development includes 2 No. apartment buildings in close proximity to wall and introduces 3 No. new openings including a vehicular opening. The construction of a block of apartments in the walled garden will bring about a very substantial change in character, which will have a negative effect on the heritage of the walled garden. In mitigation, the removal of the derelict structures when combined with the repair of the outer face of the wall, when exposed, is likely to result in positive effects on the heritage of the wall. The removal of 12.4m length of wall in the south east corner will have a significant negative effect.

vi) *The Stable Yard and Stable Buildings*

The existing Stable Yard and Buildings complex form a significant element of the curtilage of a Protected Structure. The works to the stable building will involve the removal of most of the existing modern interventions and a restoration of the original external character of the building, giving rise to positive effects on architectural heritage. The coachman's cottage will be renovated to best conservation practice. This represents an enhancement of the conservation significance.

12.5 Residual Impacts (post-mitigation)

Impacts to the setting and context of the Protected Structure and Curtilage are mitigated as noted in Section 15.5. of Chapter 15 Architectural Heritage. By the nature of the Heritage Assets, these mitigation measures are aimed at reducing the severity of the impact and upgrading historic fabric. With mitigation measures applied:

- The siting and massing of new-build elements will ensure that the centrality of Dalguise House is not compromised, and the relationship it enjoys with the historic grounds in its immediate curtilage is retained.
- Openings in the walled garden will be limited to those necessitated by the change of use of the site, and new openings will be sensitively and appropriately detailed. The garden wall will continue to be a defining feature of the site.
- The most significant elements of the Historic Landscape, Dalguise House, walled garden, lodges, historic circulation routes and stables will all be retained and enhanced. Impacts to these will be reduced to the change in setting/context and the localised loss of fabric.



13.0 MICROCLIMATE – WIND

13.1 Introduction

This chapter of the EIAR assesses the impacts of wind velocities on the proposed Large Residential Development (LRD) at the lands at Dalguise House, Monkstown Road, Monkstown, Co. Dublin, and surrounding area. This chapter of the EIAR should be read in conjunction with the Wind Microclimate Study submitted as part of this planning application. This chapter has been prepared by Metec Consulting Engineers.

13.2 Methodology

The method for the study of wind microclimate combines the use of Computational Fluid Dynamics (CFD) to predict wind velocities and wind flow patterns, with the use of wind data from suitable meteorological station and the recommended comfort and safety standards (Lawson Criteria). The effect of the geometry, height and massing of the proposed development and existing surroundings including topography, ground roughness and landscaping of the site, on local wind speed and direction is considered as well as the pedestrian activity to be expected (sitting, standing, strolling and fast walking). The results of the assessment are presented in the form of contours map of the Lawson criteria at pedestrian level. “Lawson Comfort and Distress Criteria” has been adopted for wind microclimate studies as a means of assessing the long term suitability of urban areas for walking or sitting, accounting for both microclimatic wind effects (i.e. site location and prevailing winds) and microclimatic air movement associated with wind forces influenced by the localised built environment forms and landscaping effects.

- Topography of the site with buildings (proposed and adjacent existing/permited developments massing, depending on the scenario assessed “baseline, proposed or cumulative”) have been modelled.
- Suitable wind conditions have been determined based on historic wind data. Criteria and selected wind scenarios included means and peaks wind conditions that need to be assessed in relation to the Lawson Criteria.
- Computational Fluid Dynamics (CFD) has been used to simulate the local wind environment for the required scenarios (“baseline, proposed, cumulative”).
- The impact of the proposed development massing on the local wind environment has been determined (showing the wind flows obtained at pedestrian level).
- Potential receptors (pedestrian areas) have been assessed through review of external amenity/public areas (generating the Lawson Comfort and Distress Map).
- Potential mitigation strategies for any building related discomfort conditions (where necessary) have been explored.

The significance of on-site measurement locations are defined by comparing the wind comfort/safety levels with the intended pedestrian activity at each location, using the table provided by the Lawson Comfort and Distress Criteria.



13.3 Baseline Environment

The wind microclimate of the baseline environment is defined by the wind patterns that develop on the existing site under the baseline wind conditions. There is not designated public area in the existing context, therefore the application of the Lawson Criteria was not necessary as potential receptors will use the area, for the different designated scope, when the proposed development will be constructed. However, the map of Comfort and Distress was produced as a means of understanding the wind patterns of the site generated by the local wind climate.

For assessing the wind microclimate for the proposed development, the study has considered the site exposed to all the wind directions which exceed the 5% of frequency, as required for the Lawson Criteria and some additional high-speed winds, which are occurring less often (below 5% of the times) but that can cause distress conditions because of their speed.

13.4 Potential Impacts of the Proposed Project

13.4.1 Construction Phase

As construction of the Dalguise House Development progresses, the wind conditions at the site would gradually adjust to those of the completed development. During the construction phase, wind conditions will be in line with the baseline wind microclimate and the effect on potential receptors (pedestrians) can be considered negligible.

Furthermore, the areas more sensitive for receptors (Central Landscaped Area) are potentially not going to be used until construction will be finalised.

13.4.2 Operational Phase

The assessment of the proposed scenario has shown that no area is unsafe and no conditions of distress are created by the proposed development. All the roads proposed can be used for their intended scope (walking). The proposed central landscape area can be used for long-term sitting/short term-sitting. The wind microclimate of the proposed development is comfortable and usable for pedestrians.

13.5 Residual Impacts (post-mitigation)

Wind cannot be eliminated or totally mitigated as it depends on weather conditions which could vary. The data of the historical wind conditions collected and reported in the previous sections, show that the wind speeds likely to occur on the site are below critical values and that pleasant and comfortable microclimate can be maintained for most of the time and under the most frequent wind scenarios.

Gusts and storms can still occur however, and they can create unpleasant and sometimes unsafe conditions. The pedestrian activities concerning the Lawson Comfort and Distress Criteria are not in general carried out during those weather conditions. Having considered the above, no further changes to the development design and further increasing of the



landscaping is suggested, as safety and pedestrian comfort is maintained in accordance with Lawson Comfort and Distress Criteria and Distress Criteria.



14.0 MATERIAL ASSETS - ROADS AND TRAFFIC

14.1 Introduction

This Chapter assesses any likely and significant impacts associated with traffic due to the proposed development. Mitigation measures are proposed where negative effects are identified. This chapter of the EIAR should be read in conjunction with the accompanying Transport Impact Assessment Report (TIA) and Framework Mobility Management Plan (MMP)/Travel Plan.

14.2 Methodology

Traffic count surveys were undertaken in March 2022 in order to collate the full set of traffic data considered necessary to support the planning application for the proposed development. The estimated trip rates from the proposed development were calculated and added these figures to the base flows. A Junctions 10 analysis was also undertaken to assess the capacity of the proposed accesses onto Monkstown Road (R119). An assessment of public transport provisions in the area was also carried out to determine the likely usage of public transport services by residents and visitors to the new development.

In addition, to the Transport Impact Assessment (TIA) undertaken, a Travel Plan / Mobility Management Plan (MMP) for the proposed development was prepared with the specific objectives of reducing in overall terms both the number of trips generated by the development and ensuring that greater numbers use the extensive public transport services in the immediate area. In addition, a Construction and Environmental Management Plan was prepared for the construction stage.

In terms of projecting future year traffic scenarios beyond the 2022 Base Year, the assumed Opening Year of the proposed development was taken to be 2024, with the Design Year taken as 2039. Pre-planning discussions also took place with Dun Laoghaire Rathdown County Council (DLRCC) on the proposed access and parking strategy.

14.3 Baseline Environment

The proposed development site is well served by public transport infrastructure (DART and buses), bicycle lanes and road (R119 Monkstown Road). The GDA Cycle Network Plan has identified further enhancements to the existing network in the vicinity of the proposed development. The BusConnects Plan proposes revisions to the bus network to better serve existing and proposed development in the area.



14.4 Potential Impacts of the Proposed Project

14.4.1 Construction Phase

The likely effect of the proposed development during the construction phase will be:

- 1) Additional HGV traffic along the proposed designated haul route which will have a slight medium-term adverse effect on the local road network during the construction works.
- 2) Additional construction personnel car / light vehicle movements which will have a slight medium-term adverse effect on the local road network during the construction works.
- 3) Construction vehicle movements associated the proposed development when undergoing service connections on the public road, which will have a slight short-term adverse effect on traffic movements on these roads in the vicinity of the proposed development.
- 4) Construction vehicle movements at the site access on Monkstown Road which will have a slight short-term adverse effect on pedestrian and cycle movements on these roads in the vicinity of the proposed development, for example due to pedestrians and cyclists having to give way at the construction access to the site and / or divert around construction works.

14.4.2 Operational Phase

Vehicular Traffic Impact

The AADT of Monkstown Road in the Base Year (2022) was calculated having regard to Unit 16.1 of the TII Project Appraisal Guidelines for National Roads, October 2016. The TIA has calculated that the additional AADT associated with the proposed development is equal to 9.6% of the Opening Year AADT and 8.9% of the Design Year AADT. The likely impact of the proposed development during the operational phase will therefore be negative, moderate and long-term in the immediate vicinity of the proposed development on Monkstown Road. This impact will dissipate on the wider road network, reducing with distance from the site.

Public Transport

The anticipated loading from the proposed development is less than 1% of the DART's capacity and therefore its impact on the DART public transportation system will be negligible. Therefore, the impact of additional bus passenger loading has been taken into account in the design of the future bus service network through the NTA's detailed modelling. Therefore, the local public transportation system will have adequate capacity to cater for the additional passenger loading associated with the proposed development.

Pedestrians and Cyclists

There will be an increase in the number of pedestrians and cyclists in the surroundings of the development. However, the area enjoys good pedestrian and cycle connectivity and there is ample capacity to absorb this increase.



14.5 Residual Impacts (post-mitigation)

14.5.1 Construction Phase

Following implementation of the Construction and Environmental Management Plan, the impact of the proposed development will be negative, temporary and slight during the construction stage.

14.5.2 Operational Phase

There will be a moderate increase in the use of the immediately adjacent road network by private vehicles. This will dissipate with distance from the site. There will be an increase in the number of pedestrians and cyclists in the surroundings of the development. However, the area enjoys good pedestrian and cycle connectivity and there is ample capacity to absorb this increase. The impact of the development during the operational phase will be permanent, negative and slight.



15.0 MATERIAL ASSETS – WASTE MANAGEMENT

15.1 Introduction

AWN Consulting Ltd. carried out an assessment of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by Dún Laoghaire-Rathdown County Council (DLRCC) as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

15.2 Methodology

The assessment of the impacts of the Proposed Development, arising from the consumption of resources and the generation of waste materials, was carried out taking into account the methodology specified in relevant guidance documents, along with an extensive document review to assist in identifying current and future requirements for waste management; including national and regional waste policy, waste strategies, management plans, legislative requirements and relevant reports. A summary of the documents reviewed, and the relevant legislation is provided in the RWMP and in the OWMP provided in Appendices 18.1 and 18.2.

15.3 Baseline Environment

There is currently no waste generated at the proposed development site.

15.4 Potential Impacts of the Proposed Project

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development site and in adjacent areas.

15.4.1 Construction Phase

During the construction stage, mismanagement of waste – including inadequate storage of waste, inappropriate segregation techniques, using non-permitted waste contractor or inadequate handling of hazardous waste - can all lead to **short-term, significant** and **negative** impacts.

15.4.2 Operational Phase

An inadequate strategy to management waste generated during the operational phase of the proposed development can lead to **long-term, significant** and **negative** impacts.

These impacts may arise in the form a segregation system which is not fit for purpose and lead to waste unnecessarily being diverted to landfill. Inappropriately designed waste storage areas may also lead to littering, which may have knock on effects such as the presence of vermin in the affected areas. Similarly to the construction phase, the use of non-permitted waste contractors may lead to negative environmental impacts or pollution.



15.5 Residual Impacts (post-mitigation)

During the construction phase, typical C&D waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. There will be soil and stones excavated to facilitate construction of the basement, the new building foundations, installation of services and roads for the development. The volume of material to be excavated has been estimated by the project engineers (Byrne Looby) at c. 48,830.070 m³. Any suitable excavated material will be reused on site, where possible. It is anticipated that 48,748.241 m³ of excavated material will be removed from site. Excavated material which is to be taken offsite will be taken for offsite reuse, recovery, recycling and/or disposal. The remaining material will be temporarily stockpiled for reuse as fill or for landscaping, where possible.

A carefully planned approach to waste management and adherence to the mitigation measures in Chapter 18 and the site-specific Resource Waste Management Plan (Appendix 18.1) during the construction phase will ensure that the effect on the local and regional environment will be **short-term, neutral and imperceptible**.

During the operation phase, waste will be generated from the residents, tenants and staff at the proposed development. Dedicated individual bins, satellite waste storage areas (WSA) and staging areas have been allocated throughout the development for residents and staff. The WSAs have been appropriately sized to accommodate the estimated waste arisings in individual spaces as well as in shared residential areas. The waste storage areas have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection areas and within the curtilage by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared which provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, mixed non-recyclable waste, medical waste, cardboard, plastic and glass as well as providing a strategy for management of waste batteries, WEEE, printer/toner cartridges, chemicals, textiles, waste cooking oil and furniture / bulky items (Appendix 18.2). The Plan complies with all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Provided the mitigation measures outlined in Chapter 18 and the site-specific Operational Waste Management Plan (Appendix 18.2) are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, neutral and imperceptible**.



16.0 MATERIAL ASSETS – BUILT SERVICES

16.1 Introduction

This chapter of the EIAR assesses the impacts of the proposed Large Residential Development (LRD) at the lands at Dalguise House, Monkstown Road, Monkstown, Co. Dublin, on the Material Assets – Built Services, namely the Foul Drainage, Potable Water Supply, Electricity, Gas network and telecommunications on the environment and the surrounding area. This chapter of the EIAR should be read in conjunction with the architectural and engineering drawings submitted as part of this planning application. This chapter has been prepared by Metec Consulting Engineers and Byrne Looby Consulting Engineers.

16.2 Methodology

The assessment of the potential impact of the proposed development on the water bodies was carried out according to the methodology specified by the EPA and the specific criteria set out in the Guidelines on Information to be Contained in an Environmental Impact Statement (EPA 2002 and 2017 (Draft)), EIA Directive, Advice Notes on Current Practice (in preparation of Environmental Impact Statements) (EPA 2003), Environmental Impact Assessment (EIA), Guidance for Consent Authorities Regarding Sub-Threshold Development (DoEHLG 2003), Development Management Guidelines (DoEHLG, 2007) and Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessments August 2018.

The following sources of information were used in the completion of this assessment:

- Site Visits
- Site Investigation Report
- Civil Engineering Drawings Prepared by Byrne Looby Consulting Engineers
- Geological Survey of Ireland (GSI) online maps and databases
- ECFRAMS Flood Mapping from OPW
- EPA online maps and databases
- Topographical Survey • Local authority record drawings
- ESB record drawings • BGE record drawings
- EIR record drawings
- Virgin Media record drawings

All drainage (surface and foul) and water supply will be provided in accordance with the requirements of Dun Laoghaire-Rathdown County Council and with the following:

- Greater Dublin Regional Code of Practice for Drainage Works
- Greater Dublin Strategic Drainage Study (GDSDS)
- Planning System and Flood Risk Management Guidelines
- Building Regulations (Part H)
- Irish Water Standard Details and Codes of Practice for Water and Wastewater
- Infrastructure
- CIRIA SuDS manual C753 (2015).



This chapter also encompasses knowledge obtained from site visits, drainage and water services record information received from Irish Water and the Local Authority. Additionally, information from the EPA and GSI websites has been utilised.

Metec contacted each electrical, comms and gas utility provider in order to determine the existing infrastructure in the area in and around the site.

16.3 Baseline Environment

16.3.1 General

Foul Water Drainage:

The background information identifies that a main combined sewer exists running under on the line of the Stradbrook/Monkstown Stream was obtained. The main is a 450mm diameter vitrified clay (VC) line flowing towards Carrickbrennan Road with an existing manhole for connection 1 at the Western end of the Purbeck Lodge and Dalguise House site intersection while proposed connection 2 is adjacent western boundary to the Drayton Close estate.

A further 450mm diameter Irish Water/ DLRCC Vitrified Clay (VC) combined line, exists, which runs from the Monkstown Valley development onto the application site, current entrance/exit roadway, and onto Monkstown Road, down Albany Avenue before connecting onto a main combined line on Seapoint Avenue was noted.

Dalguise House is served by a separate septic tank and percolation area located in the lands outside to the Walled Garden on the western boundary. This will be removed during the construction phase.

Potable Water Supply:

There is an existing 160 diameter HPPE or equivalent, Irish Water, watermain on Monkstown Road. This has been confirmed by Irish Water.

Natural Gas:

The wider area is served by a 250mm Low Pressure Network, with the site currently supplied with a low pressure connection from the Monkstown Road.

Electricity:

The wider area is served by a 10kV and 400 Volt Network, with the site currently supplied with a low voltage connection from the Monkstown Road. A High Voltage Line is located on the near carriage of the Monkstown Road, connecting High Voltage stations across South Dublin.

Telecommunications:

The wider area is served by a Fibre and Copper Network fed from local exchanges, with Open air duct infrastructure currently installed to the site boundary via the Purbeck scheme.



16.4 Potential Impacts of the Proposed Project

16.4.1 Construction Phase

16.4.1.1 Direct

Accidental spills of harmful substances such as petrol/diesel or oil during the delivery and storage of harmful substances or by leakages from construction machinery. Potential for building materials or silts to be washed into the surface water system, causing blockages and pollution.

During the connection of new mains to existing mains on site there is a small risk that contamination of the existing supply may occur. The potential impact on the local public water supply network would be short term and significant.

As part of the confirmation of feasibility, upgrade works are required. These works are outside the site extents and will be carried out independently by Irish Water.

Natural Gas Supply

The requirement for Gas will not impact the site as the gas usage is anticipated to be low. The impact is likely to be not significant.

Electrical Supply

The impact is likely to be neutral, imperceptible, and temporary.

Telecommunications

EIR/Virgin Duct networks can be extended along roadways to service the development. The impact is likely to be neutral, imperceptible and temporary.

16.4.1.2 Indirect

There is not anticipated to be any indirect affects to the built assets during the construction phase.

16.4.1.3 Worst Case Scenario

The worst-case scenario is that flooding occurs on-site and in the surrounding area due to this development. On-site measures are to be provided during construction as outlined in this chapter and the water chapter, to ensure such flooding does not occur.

16.4.2 Operational Phase

16.4.2.1 Direct

Given the proposed residential usage, there is very little risk of accidental spillages resulting in water quality issues during the operational stage.



The development will result in an increase in the wastewater discharged from the site to the public sewer system. The foul outflow from the site will be directed to the municipal treatment plant at Ringsend. Upgrade works are needed as the plant is not currently meeting its requirements under the Urban Wastewater Treatment Directive and increased outflow from development such as the proposed development will increase loading on the Ringsend WWTP. However, planning permission has recently been granted, under Bord Order ABP301798-18 for an expansion to the WWTP at Ringsend which will increase network capacity by 50%. Irish Water have also confirmed feasibility for connection of the proposed development to the existing public sewer system subject to controlled flow provisions on the new development. Therefore, any impact from the increased wastewater flows on the existing drainage network will be temporary and not significant.

There exists a minor risk associated with the possibility of leakage from damaged foul sewers and drains within the development site. Any foul water leakage could result in minor contamination of groundwater in the area. The current foul water drainage system that is on site will need to be replaced. Placing a new system on site reduces the overall risk of leakage from damaged sewers.

Basement and undercroft car parking areas on site will discharge to the foul system via a petrol interceptor to prevent pollution from accidental oil spills.

The new development will lead to an increase in the water supply demand on the public water supply network. Irish Water has confirmed that there is capacity in the system to take additional demand. There is very little likelihood of accidental damage occurring to the water supply system during the operational phase of the development.

Natural Gas Supply

As there is very small requirement for Gas this will not impact the site. The impact is negligible and will be less than or similar to existing usage.

Electrical Supply

The impact of the proposed LRD development on the electricity supply is likely to be an increase in demand on the existing supply.

The potential impact of the proposed LRD development on the electricity network is likely to be neutral.

Telecommunications

EIR & Virgin Duct networks are to be extended from Purbeck to service the Development. The potential impact of the proposed development on the EIR/Virgin networks is likely to be neutral.



16.4.2.2 Worst Case Scenario

The worst-case scenario would be a failure of one of the systems on the site, which may cause flooding or pollutants to enter the surrounding environment and cause negative effects. There is very little risk of this occurring during the operational stage.

16.5 Residual Impacts (post-mitigation)

Implementation of the mitigation measures and adherence to the Construction and Environmental Management Plan prepared for the project will ensure that any potential residual impacts will be short term and imperceptible.



17.0 INTERACTIONS

17.1 Introduction

This Chapter of the EIAR has been prepared by Tom Phillips + Associates and deals with likely interactions between effects predicted as a result of the proposed development.

In addition to the requirement under the *Planning and Development Regulations 2001 (as amended)* to describe the likely significant effects of the proposed development on particular aspects of the environment, it is also required to consider the interaction between impacts on different environmental factors. As such, these are assessed below.

The interaction of effects within the Proposed Development in respect of each of the environmental factors, listed in Article 3(1) of the EIA Directive, has been identified and addressed in the respective chapters in this EIAR. This chapter presents an overview of these interactions of impacts, from the Proposed Development, between the various environmental factors.

This Chapter outlines the areas where potential interactions may arise as a result of the proposed development.

The potential cumulative impact of the proposed development with committed or planned development projects in the surrounding area is also recognised as an interaction between potential environmental impacts. Cumulative impact has been addressed in detail in Chapter 21 below.

17.2 Description of Potential Interactions

All aspects of the environment are likely to interact to some extent and to various degrees of complexity. The likely significant interactions between factors arising from the proposed development are set out in the matrix provided as Table 20.1 below.



Interactions Between Environmental Factors												
	Popula tion & Human Health	Biodive rsity	Land, Soils, Geology and Hydroge ology	Hydrol ogy	Air Quali ty/ Clima te	Noise & Vibrat ion	Landsc ape & Visual	Architec tural Heritage	Cultural Heritage and Archaeo logy	Roads and Traf fic	Was te	Built Servi ces
Populati on & Human Health			✓	✓	✓	✓	✓			✓	✓	✓
Biodivers ity			✓	✓		✓	✓	✓			✓	✓
Land, Soils, Geology and Hydroge ology				✓	✓						✓	✓
Hydrolog y								✓				
Air Quality/ Climate										✓		
Noise & Vibration										✓		
Landscap e & Visual								✓				
Architect ural Heritage									✓			
Cultural Heritage and Archaeol ogy												
Roads and Traffic											✓	
Waste												
Built Services												

Table 17.1: summary of interactions between effects predicted as a result of the proposed development.



17.2.1 Interactions between *Population and Human Health and Land, Soils, Geology and Hydrogeology*

As set out in Chapter 7 and 9 there is the potential for public health issues to arise due to the potential contamination of the land and soils due to the construction works. With the application of the proposed mitigation measures during the construction process, (as outlined in Section 9.5), along with good site management and construction practices will eliminate any significant impact on the environment and reduce significance to 'imperceptible' in all cases.

17.2.2 Interactions between *Population and Human Health and Hydrology - Surface Water*

As set out in Chapter 7 and 10 there is the potential for public health issues to arise due to the potential contamination of the surface water due to the construction works. With the application of the proposed mitigation measures during the construction process, (as outlined in Section 10.5), along with good site management and construction practices will eliminate any significant impact on the environment and reduce significance to 'imperceptible' in all cases.

17.2.3 Interactions between *Population and Human Health and Air Quality and Climate*

As set out in Chapter 7 and 11, there is potential for interaction between population, human health and air quality on the basis that an adverse impact due to air quality in either the construction or operational phase has the potential to cause health and dust nuisance issues. The mitigation measures that will be put in place at the proposed development will ensure that the impact of the proposed development complies with all ambient air quality legislative limits. Therefore, with mitigation measures it is considered that there will be no residual impact to human health arising from air quality or climate impact during the construction or operational phase of development.

17.2.4 Interactions between *Population and Human Health and Noise and Vibration*

As set out in Chapter 7 and 12, there is potential for population, human health and noise arising from noise/ vibration emissions during the construction phase. The potential for negative, significant but short-term impact at the closest receptors arises in respect of noise at construction stage. As the noise impacts associated with the construction phase will be temporary to short-term in duration and any elevated levels of noise will be of limited duration, the resultant impact to human health is not significant. Plant selected in the operational phase will result in a residual impact that is imperceptible to people nearby noise sensitive locations.

17.2.5 Interactions between *Population and Human Health and Landscape and Visual*

As set out in Chapters 7 and 13, there are potential interactions between population and human health and landscape and visual on the basis of the potential effects arising from visual effects upon surrounding existing dwellings and their occupants. However, as Chapter 7 confirms, even where the proposed development is more readily visible in its surrounding context, the magnitude of operational stage landscape/townscape impacts will be negative-



neutral, moderate-slight in the long-term at the closest receptors. The impact upon population and human health is therefore not considered to be significant.

17.2.6 Interactions between Population and Human Health and Material Assets (Roads and Traffic)

As set out in Chapters 7 and 17, there are potential interactions between population and human health and material assets (roads and traffic) arising from increased traffic volumes at construction and operational phase and the associated impacts surrounding air quality and noise. However, as outlined within the respective chapters, with the proposed mitigation in place, the resultant potential impact is not considered to be significant.

17.2.7 Interactions between Population and Human Health and Material Assets (Waste Management)

As set out in Chapter 7 and 18, there are potential impacts on human beings are in relation to incorrect management of waste during construction and / or operation, which could result in littering and presence of vermin – with associated potential for negative impacts on human health and residential amenity. A carefully planned approach to waste management and adherence to the project specific RWMP and OWMP (Appendices 18.1 and 18.2, respectively), will ensure appropriate management of waste and avoid any negative impacts on the local population. The effects should be long-term, imperceptible and neutral.

17.2.8 Interactions between Biodiversity and Land, Soils, Geology and Hydrogeology

As set out in Chapter 8 and 9, there is a potential interaction between biodiversity and land, soils, geology and hydrogeology during the construction phase which will require the excavation and importation of large amounts of material. This is identified as having the potential to lead to habitat loss and the potential for pollution within the site and outside the site. Following the implementation of the mitigation measures in Chapter 8 and 9, there will be no significant effect on the Key Ecological Receptors.

17.2.9 Interactions between Biodiversity and Hydrology

As set out in Chapters 8 and 10, there are potential interactions between biodiversity and hydrology. This is identified on the basis that during the construction and operational phases of development, there is the potential for the proposed development to lead to pollution of the Stradbroke Stream and connected habitats downstream via contaminated surface water runoff. Following the implementation of mitigation measures outlined in Chapter 8 and Chapter 10, there will be no significant effect on the Key Ecological Receptors.

17.2.10 Interactions between Biodiversity and Noise and Vibration

As set out in Chapter 8 and 12, there is potential for interactions between biodiversity and noise and vibration on the basis that during the construction and operational phase of development there will be an increase in disturbance including noise and vibration that could potentially lead to increased disturbance. Following the implementation of the mitigation measures in Chapter 8 and 12, there will be no significant effect on the Key Ecological Receptors.



17.2.11 Interactions between *Biodiversity and Material Assets (Waste)*

As set out in Chapter 8, there is potential for interaction between biodiversity and material assets (waste) on the basis that there is the potential for the construction and operation of the proposed development to lead to pollution within the site and the wider environment. Following the implementation of mitigation measures designed to reduce the amount of waste produced, manage the wastes generated responsibly and handle the waste in such a manner as to minimise the effects on the environment as outlined in Chapter 8 and Chapter 18, there will be no significant effect on the Key Ecological Receptors.

17.2.12 Interactions between *Biodiversity and Landscape and Visual*

As set out in Chapter 8, there is potential for interaction between biodiversity and Landscape and Visual on the basis that there is potential for the construction and operation of the proposed development to lead to habitat loss, habitat degradation, the introduction of species of low biodiversity value and the introduction of artificial lighting. Following the implementation of the mitigation measures in Chapter 8 and 13, there will be no significant effect on the Key Ecological Receptors.

17.2.13 Interactions between *Land, Soils, Geology and Hydrogeology and Hydrology*

As set out in Chapter 9, there are potential interactions between land, soils, geology and hydrogeology and surface water, due to the excavation and removal of made ground and overburden which could potentially increase the sediment loading to the surface water environment and impact to associated aquatic species. Chapter 10 also notes that, further, contaminated or imported soil has the potential to run off during the construction phase and have negative impacts on surface water environments. The implementation of mitigation measures during the construction phase, along with good site management and construction practices will eliminate any significant impact on the environment and reduce significance to 'imperceptible' in all cases.

17.2.14 Interactions between *Air Quality and Climate and Roads and Traffic*

Chapter 11 identifies potential interactions between air quality and climate and roads and traffic, noting that interactions between air quality and traffic can be significant. With increased traffic movements and reduced engine efficiency, i.e. due to congestion, the emissions of vehicles increase. The impacts of the proposed development on air quality are assessed by reviewing the change in annual average daily traffic on the surrounding road network and the proposed scheme. In this assessment, with appropriate mitigation measures the impact of the interactions between traffic and air quality are considered to be imperceptible.



17.2.15 Interactions between *Air Quality and Climate* and *Land, Soils, Geology and Hydrogeology*

Chapter 9 and 11 identify potential interactions between air quality and climate and land and soils on the basis that construction phase activities such as land clearing, excavations, stockpiling of materials etc. have the potential for interactions between air quality and land and soils in the form of dust emissions. With the appropriate mitigation measures to prevent fugitive dust emissions, it is predicted that there will be no significant interactions between air quality and land and soils.

17.2.16 Interactions between *Noise and Vibration* and *Roads and Traffic*

Chapter 12 and 17 note potential interactions between noise and vibration and road and traffic on the basis that the noise impacts have been fully considered in respect of traffic flow projections associated with the development. Residual noise impacts at construction and operation phases are identified in Chapter 12 as imperceptible.

17.2.17 Interactions between *Architectural Heritage and Landscape (Townscape) and Visual*

Chapters 13 and 14 identify a potential interaction between architectural heritage and landscape (townscape) and visual on the basis that the development of the site significantly changes the character of the development site, including views into and out of the site. The receiving townscape is considered to have Medium sensitivity. The magnitude of townscape impact is therefore deemed to be Moderate-slight and of a marginally negative quality i.e. Neutral-Negative.

17.3.18 Interactions between *Material Assets (Waste Management)* and *Land, Soils, Geology and Hydrogeology*

As identified in Chapter 18, during the construction phase excavated material (c. 48,830m³) will be generated from the excavations required to enable the construction of the basement, facilitate site levelling, construction of new foundations and the installation of underground services. It is estimated that 48,748m³ of the excavated material will need to be removed offsite. of the excavated material will need to be removed offsite. Where material has to be taken off site it will be taken for reuse, recycling or recovery, where practical, with disposal as last resort. Adherence to the mitigation measures in Chapter 9 (Land, Soils, Geology and Hydrogeology) and in the RWMP (Appendix 18.1), will ensure the effect is long-term, imperceptible and neutral.

17.3.19 Interactions between *Architectural Heritage and Hydrology*

Chapter 15 identifies a potential interaction between architectural heritage and hydrology on the basis that development of the site would have the potential to increase site run off. With the appropriate surface water attenuation associated with the proposed development there are no predicted residual impacts arising.



17.3.20 Interactions between *Material Assets (Roads and Traffic)* and *Material Assets (Waste Management)*

As identified by Chapter 18, waste has the potential to interact with roads and traffic on the basis that local traffic and transportation will be impacted by the additional vehicle movements generated by removal of waste from the Site during the construction and operational phases of the proposed Development. The increase in vehicle movements as a result of waste generated during the construction phase will be temporary in duration. There will be an increase in vehicle movements in the area as a result of waste collections during the operational phase but these movement will be imperceptible in the context of the overall traffic and transportation increase. Traffic-related impacts during the construction and operational phases are addressed in Chapter 17 (Material Assets - Roads and Traffic). With the mitigation measures detailed in Chapter 17 & 18 and the requirements of the OWMP (included as Appendix 18.2), the predicted effects are short to long-term, imperceptible and neutral.

17.2.21 Interactions between *Archaeology and Cultural Heritage* and *Architectural Heritage*

Chapters 14 identifies a potential interaction between Archaeology and Cultural Heritage and Architectural Heritage on the basis that heritage considerations form the basis of both chapters. With appropriate mitigation measures, there are no predicted residual impacts upon the archaeological and cultural heritage resource. The Architectural Heritage chapter identifies residual negative impacts after mitigation on the setting; the greenhouses, the walled garden. It also identified moderate positive residual impacts on the main circulation routes, gate lodges, modern buildings, Dalguise House and the stable yard and associated buildings.

17.2.22 Interactions between *Population and Human Health* and *Material Assets (Built Services)*

As identified by Chapter 7 and Chapter 19, there is the potential for the built services to interact with population and human health on the basis that there is the potential for public health issues to arise due to the contamination of the surrounding water service networks due to the construction works. There is a potential for disruption to services due to accidents on site during the construction process. With the appropriate mitigation measures applied during the construction process, the danger to public health will be negative, significant, and short term.

17.2.23 Interactions between *Land, Soils, Geology and Hydrogeology* and *Material Assets (Built Services)*

As identified by Chapter 19, there is the potential for the built services to interact with land, soils, geology, and hydrogeology on the basis that during the installation process of the necessary built services, excavations will be required. These excavations will be limited in their depth and therefore with mitigation measures any impact they have on the land, soils, geology, and hydrogeology will be negative, imperceptible, and temporary.



17.2.24 Interactions between *Biodiversity* and *Material Assets (Built Services)*

As identified by Chapter 8 and Chapter 19, there is potential for the construction and operation of the proposed development to lead to impacts on local biodiversity and downstream impacts on proximate watercourses and designated sites via excavation and installation works during the proposed implementation of infrastructure throughout the site. Following the implementation of the mitigation measures in Chapter 8 and 19, there will be no significant effect on the Key Ecological Receptors.

17.3.25 Interactions between *Architectural Heritage* and *Biodiversity*

As identified by Chapter 15 there is the potential for the demolition of buildings on site to lead to impacts on local biodiversity, particularly bats. Following implementation of the mitigation measures in Chapter 8 there will be no significant effect on the Key Ecological Receptors.



18.0 CUMULATIVE IMPACTS

18.1 Introduction

This Chapter has regard to the potential cumulative impact upon the environment arising from the proposed project, in combination with other developments (committed or planned projects) in the surrounding area. This Chapter should be read in conjunction with Section 3.7.1 and 3.7.2.

The accepted meaning of “cumulative impacts” is as set out in the Guidance on the Preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU) as:

“changes to the environment that are caused by activities/projects in combination with other activities/projects.”

This very broad interpretation has been further defined in the Irish context in the EPA’s 2022 Guidelines on the Information to be Contained in Environmental Impact Assessment Report to mean:

“the addition of many minor or significant effects including effects of other projects, to create larger, more significant effects”.

The EPA guidance goes on to provide that while a single activity may itself result in a minor impact, it may, when combined with other impacts (minor or significant), result in a cumulative impact that is collectively significant.

Having regard to the built-up urban environment within which the subject lands are located, there is a significant amount of new development either under construction, permitted or proposed. In recognition of this, and the potential for cumulative impacts upon the environment, an extensive exercise has been undertaken to identify projects within the surrounding area that have the potential to give rise to cumulative impact, when considered in combination with the proposed development. The methodology surrounding the identification of relevant projects is set out below.

18.2 Planned and Committed Projects

A number of development projects in the surrounding area have been identified as relevant to the assessment of environmental impacts associated with the proposed project, from a cumulative perspective. The methodology surrounding the selection of the below projects, which are located within a spatial limit of c. 2km radius of the site boundary, is detailed in Chapter 21 of this EIAR. Figure 3.7 shows the identified projects on a map.

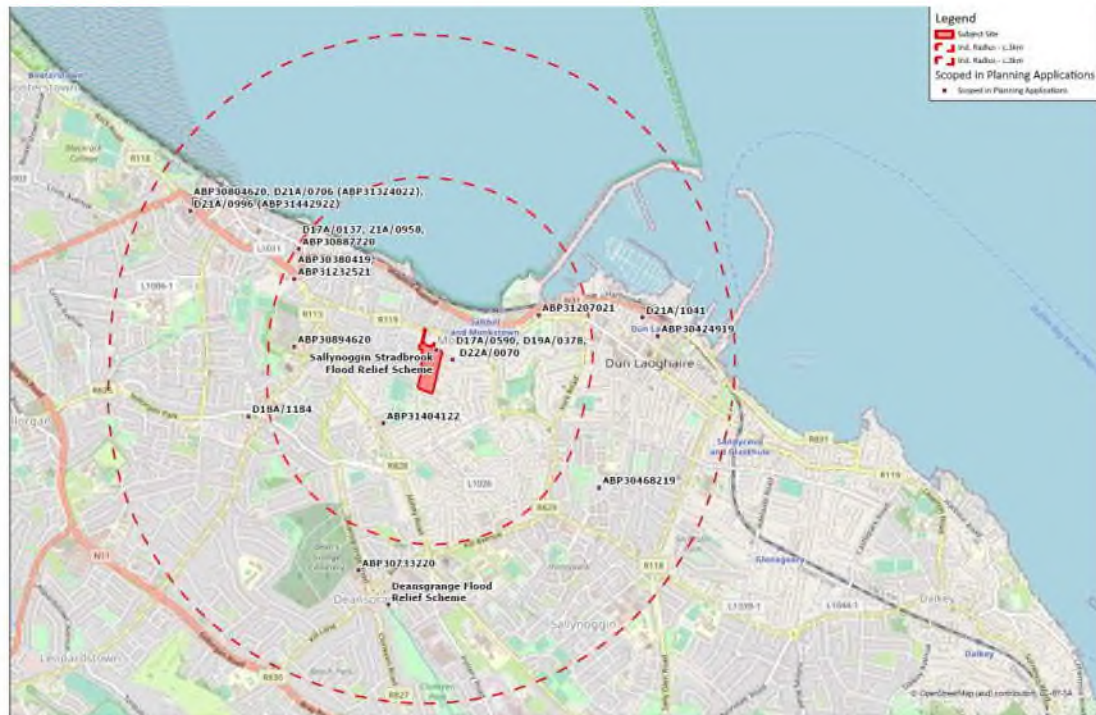


Figure 18.1: Map showing surrounding development selected for the purposes of cumulative impact assessment.

18.2.1 Committed (Permitted/ Under Construction) Projects

The below projects have been granted planning permission by Dún Laoghaire-Rathdown County Council (DLRCC) or An Bord Pleanála (ABP) within the last 5 years (2017-2022). Each of these projects represent developments which consist of 50 residential units or more. These represent both mixed-use and residential developments, granted either through Section 34 process directly to DLRCC, through Strategic Housing Development (SHD) applications directly to ABP, or granted by ABP following either first- or third-party appeals. This list includes applications within a 2km radius of the subject site at Dalgua House.



DLRCC/ ABP Reg. Ref.	Address	Decision Date	Overview of Development	Distance to Dalguise House
D17A/0590+A BP-301533-18	Richmond Cheshire Home, Richmond Park, Monkstown, Co Dublin	12 th April 2018. Granted after appeal on 7 th January 2019	Residential development consisting of the demolition of the existing nursing home and 5 no. studio apartments and the construction of a total of 56 no. residential units in 2 no. apartment blocks 76 car parking spaces, 5 motorcycle spaces and 41 bicycle spaces; 5 visitor car spaces and 26 bicycle spaces at surface level	Adjoining Dalguise House: < 50 metres
D19A/0378+A BP-305843-19	Former Richmond Cheshire Home, Richmond Park, Monkstown, Co Dublin	05 Jun 2019. Granted after appeal on 26 th May 2020	Permission for revisions to a residential development previously permitted under Reg. Ref. D17A/0590 / ABP- 301533-18. 72 no. residential units in these 2 no. apartment blocks. 79 car parking spaces, 7 motorcycle spaces and 64 bicycle spaces	Adjoining Dalguise House: < 50 metres
ABP30380419	St. Teresa's House/Centre and St. Teresa's Lodge (Protected Structures), Temple Hill, Monkstown, Blackrock, Co. Dublin.	10 th June 2019	294 no. apartments, conversion of St. Teresa's House, dismantling and relocation of St. Teresa's Lodge,	1.2 km



ABP31232521	3.9 ha at 'St. Teresa's House' (A Protected Structure) and 'St. Teresa's Lodge' (A Protected Structure) Temple Hill, Monkstown, Blackrock, Co. Dublin	14 th April 2022	New residential and mixed use scheme of 493 residential units Including the subdivision, conversion and re-use of 'St. Teresa's House' the dismantling, relocation and change of use from residential to café of 'St. Teresa's Lodge' within the site development area.	1.2 km
ABP30887720	Former Europa Garage Site, Newtown Avenue, Blackrock, Co. Dublin	12 th April 2021	Development of 101 no. apartments	1.3 km
D17A/0137	Newtown Avenue, Blackrock, Co. Dublin. This site is known as the 'Former Europa Garage site'	12 th April 2017 (after appeal)	Demolition of the garage buildings on site. The residential scheme shall provide for 51 no. residential units	1.3 km
ABP-304682-19	Previously permitted Blocks 2 and 3, Cualanor, Glenageary, Upper Road, Co. Dublin.	30 th August 2019	368 no. apartments and associated site works.	c.1.3km
ABP30894620	Lands adjacent and to the rear of Cluain Mhuire Family Centre, Newtownpark Avenue, Blackrock, Co. Dublin	15 th April 2021	Demolition of a single storey shed, construction of 140 no. apartments	1.4 km
ABP-304249-19	Old School House, Eblana Avenue, Dun Laoghaire, Co. Dublin.	26 th July 2019	Demolition of existing buildings on site, construction of 208 no. Build to Rent Shared Living Residential Development,	c.1.5km



			cafe/kiosk and associated site works.	
ABP-308046-20	Frascati Centre, Frascati Road, Blackrock, Co. Dublin.	16 th December 2020	Alterations to Phase 1 permission for 45 no. apartments from second to fourth floor permitted under Reg.Ref: D17A/0950 and ABP-300745-18 to include the provision of 57 no. additional apartments as an extension to Phase 1, the subject application relates to a total of 102 no. apartments.	c.1.85km
D21A/0706 + ABP -313240-22	Frascati Centre, Frascati Road, Blackrock, Co. Dublin.	Granted 15 th March 2022. 3 rd party appeal to ABP lodged 5 th April 2022.	The proposal relates to a Phase 2A residential development of 41 no. apartments and the allocation of 60 no. car spaces.	c.1.85km
ABP30733220	Dean's Grange Road, Deansgrange, Co. Dublin	20 th September 2020	Demolition of existing buildings, construction of 151 no. apartments	1.9 km
D18A/1184+A BP-305265-19	Junction of, Fleurville Road and, Newtownpark Avenue, and abutting, Annville Avenue to the east, Blackrock, Co. Dublin	29 th July 2019. Granted after appeal on 13 th Feb 2020	Residential development consisting of 68 no. apartments	2 km

18.2.2 Planned Projects

The below projects are planned projects that are at various stages of the planning process. The key distinction from the projects listed above is that they do not have planning permission at the time of writing. Each of these projects represent developments which consist of 50 residential units or more. These represent both mixed-use and residential developments, granted either through Section 34 process directly to DLRCC, through SHD applications directly



to ABP, or granted by ABP following either first- or third-party appeals. This list includes applications within a 2km radius of the subject site at Dalguise House.

DLRCC/ ABP Reg. Ref.	Address	Lodgement Date/ Status	Overview of Development	Distance to Dalguise House
D22A/0070 + ABP-313363- 22	Richmond Cheshire Home, Richmond Park, Monkstown, Co. Dublin	Planning Application Lodged 31 st January 2022. Refused by DLRCC and is now subject of a first party appeal to ABP.	Residential development comprising of 96 no. apartment units	Adjoining subject site: <50 metres
N/A	Stradbrook/Sallynoggin Streams	Tender documents for a CCTV and flow survey have been prepared which is envisaged to be completed during winter 2021- 2022.	Roughan & O'Donovan Consulting Engineers (ROD) has been commissioned by Dún Laoghaire – Rathdown County Council (DLRCC) to prepare Flood Alleviation Options (FAO) for the Stradbrook and Sallynoggin Streams.	Runs through subject site
ABP-314041- 22	Lands located at and adjoining Stradbrook House, Stradbrook Road, Mountashton, Blackrock, Co. Dublin.	Planning Application lodged 11 th July 2022	Demolition of the existing Stradbrook House and adjoining surface car park, and the construction of 108 No. Build-to-Rent residential senior living apartments	0.5 km
D21A/0958 + ABP 313569	Former Europa Garage Site, Newtown Avenue, Blackrock, Co Dublin	20 th April 2022	Residential development providing 91 residential units	1.3 km



ABP31207021	The former Ted Castles site and Dun Leary House (a Protected Structure), Old Dun Leary Road, Cumberland Street and Dun Leary	Planning Application Lodged 26 th November 2021.	'Build to Rent' strategic housing development consisting of the construction of a new development of 146 no. units	1.4 km
D21A/1041	St. Michael's Hospital Car Park, Crofton Road, Dun Laoghaire, County Dublin, A96 TN26	3 rd Party Appeal lodged against decision to grant on 8/8/22.	Mixed use development of 88 no. Build to Rent residential apartments, commercial unit and café across 2 buildings.	1.4km
N/A	Deansgrange Stream	Detailed Construction Design, Compilation of Work Packages and the Preparation of Tenders for Contracts	Improvements to the flood defence regime	1.6km at closest point
D21A/0996 + ABP-314429-22	Frascati Centre, Frascati Road, Blackrock, Co. Dublin.	3 rd Party Appeal lodged against decision to grant on 22/08/22.	The proposal relates to a Phase 3 residential development of 98 no. apartments and all associated site works.	c.1.85 km

18.3 Potential Cumulative Impact

Each Chapter which addresses a specific environmental factor provides a detailed cumulative impact assessment in respect of the committed and planned projects identified in Chapter 3 (Sections 3.7.1 and 3.7.2). The aforementioned chapters should be referred to for full details of the assessment; this chapter provides a summary of the cumulative impact assessment.



Table 18.2: Summary of the conclusions of the Cumulative impact assessment undertaken in respect of each environmental aspect.

Chapter/ Environmental Factor	Potential Cumulative Impact
Population and Human Health	Chapter 7 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1, and 3.7.2 of this EIAR and concludes that other than the potential of neutral, imperceptible, and short-term cumulative impacts arising from construction activities upon human health (addressed in detail in Chapters 7 and 12), no further significant adverse cumulative effects would arise.
Biodiversity	Chapter 8 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Land, Soils, Geology and Hydrogeology	Chapter 9 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Hydrology	Chapter 10 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Air Quality and Climate	Chapter 11 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Noise and Vibration	Chapter 12 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising from the operational phase of the project. In respect of the construction phase, the assessment concludes that there is potential for cumulative construction noise impacts to arise which are expected to be negative, significant and short-term.



Landscape (Townscape) and Visual	Chapter 13 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Cultural Heritage and Archaeology	Chapter 14 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Architectural Heritage	Chapter 15 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Microclimate - Wind	Chapter 16 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR and concludes that there would be no significant adverse cumulative effects arising.
Material Assets (Roads and Traffic)	Chapter 17 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR. The estimated traffic arising from the development incorporates a number of committed and planned projects deemed to have potential cumulative interactions with the development. In this regard, Chapter 17 concludes that for the construction phase of development: <i>"The volume of traffic to be generated is therefore modest and will not, in itself or in combination with other nearby developments, give rise to appreciable cumulative impacts on the surrounding road network"</i>. The following is concluded for the Operational Phase Cumulative Impacts: Vehicular Traffic The impact of other developments in the vicinity is captured by the application of TII growth factors to surveyed traffic volumes on the surrounding road network, which indicates increases of c. 4% per annum in background traffic volumes in the period to 2030, reducing thereafter. These figures also account for modal shift from existing car users towards more sustainable modes of



	transport, as the facilities available for these other modes improve with time. There is ongoing significant investment in bicycle, bus and train infrastructure, with ongoing increase in uptake of these modes. • Further, the impact of increased home-working in the aftermath of the Covid19 pandemic is not captured by these figures, and that has led to a general reduction in peak vehicular traffic flows on the road network. Public Transport • The impact of this cumulative additional passenger loading has been taken into account in the design of the future bus service network and therefore these cumulative impacts will be slight to moderate. Pedestrian and Cycle Facilities • The cumulative impacts in terms of these modes will be negligible.
Material Assets (Waste Management)	Chapter 18 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1, and 3.7.2 of this EIAR, and concludes that there would be no significant adverse cumulative effects arising.
Material Assets (Built Services)	Chapter 19 has undertaken a cumulative impact assessment of the proposed development in combination with the projects outlined in Sections 3.7.1 and 3.7.2 of this EIAR, and concludes that there would be no significant adverse cumulative effects arising.



19.0 ENVIRONMENTAL COMMITMENTS/ MITIGATION MEASURES

19.1 Summary

This Chapter provides a consolidated list of all of the environmental commitments/ mitigation measures that have been recommended by the various specialists throughout the Chapters of this EIAR.

The mitigation and monitoring measures have been recommended on that basis that they are considered necessary to protect the environment during both the construction and operational phases of the proposed project. A summary table is provided as an Appendix to Chapter 22 of Volume 2.

APPENDIX 1

Details in respect of the competence of the various experts

Table 1.3: EIAR Project Team and Environmental Specialists

Name	Role	Company	Qualification/ Experience
Cheryl O'Connor	EIAR Project Manager, Co-ordinator and Planner	Tom Phillips + Associates	BSocSc, MPlan (Planning and Sustainable Development) - Senior Planner - Corporate Member of the Irish Planning Institute (IPI) and Licensee Member of the Royal Town Planning Institute (RTPI) - Over 7 years' experience in Planning and EIA.
Julie Costello	EIAR Project Manager, Co-ordinator and Planner	Tom Phillips + Associates	Julie Costello – BA, MRUP (Regional and Urban Planning) - Associate Planner at TPA - Corporate Member of the Irish Planning Institute (IPI) - Over 15 years' experience in Planning and EIA.
Chonail Bradley and David Doran	Population and Human Health Assessment.	AWN	Chonail Bradley- BScEnv AssocMCIWM - Principal Environmental Consultant - Associate Member of the Chartered Institute of Waste Management - Over 7 years' experience in EIA, Environmental reporting and Waste Management David Doran- MSc in Environmental and Energy Management - Environmental Consultant with 1.5 years' experience in the Environment Team at AWN. - Holds a MSc in Environmental and Energy Management and is an Affiliate Member of CIWM.
Patrick O'Shea/Kalvin Townsend-Smyth/Rachel Heaphy	Biodiversity Assessment	ROD	Patrick O'Shea- M.Sc. Ecological Management and Conservation Biology; BA in Natural Sciences (Botany). - Senior Ecologist in ROD (MCIEEM) Full Member of Chartered Institute of Ecology and Environmental Management - Patrick holds licences issued by the National Parks and Wildlife Service



			for bat roost disturbance during surveys (DER-BAT-2022-39) and to handle bats during the course of his work • (C59/2022). • Over 9 years in ecological survey and assessment for infrastructure projects. Kalvin Townsend-Smyth- BSc (Hons) in Wildlife Biology • Ecologist at ROD • 3 years' experience in ecological consultancy Rachel Heaphy- BSc (Hons) in Zoology • Ecologist at ROD • 1 year experience in ecological assessment.
Jackelyn Wren	Land, Soils, Geology and Hydrogeology Assessment	ByrneLooby Consulting Engineers	Jackelyn Wren - Honours Bachelor of Arts Degree in Geography • Senior Environmental Specialist • 8 years' professional experience in the preparation of Environmental Impact Assessment (EIA) Reports in Ireland and the Middle East.
Jackelyn Wren	Hydrology – Surface Water	ByrneLooby Consulting Engineers	Jackelyn Wren - Honours Bachelor of Arts Degree in Geography • Senior Environmental Specialist • 8 years' professional experience in the preparation of Environmental Impact Assessment (EIA) Reports in Ireland and the Middle East.
Ciara Nolan	Air Quality and Climate Assessment	AWN Consulting	Ciara Nolan- BSocSci (Hons) Social Policy and Geography • Senior Environmental Consultant in the Air Quality section of AWN Consulting. • BSc in Energy Systems Engineering from University College Dublin. • MSc in Applied Environmental Science at UCD. • Member of the Institute of Air Quality Management (MIAQM) and the Institute of Environmental Science (MIEnvSc). • Specialises in the fields of ambient air monitoring, indoor air



			monitoring, EIA and air dispersion modelling.
Niamh Nolan	Air Quality and Climate Assessment	AWN Consulting	Niamh Nolan- BSocSci (Hons) Social Policy and Geography • Air Quality Consultant. • Associate member of Institute of Air Quality Management (IAQM) and the Institution of Environmental Science (IES). • Experience in mapping software primarily in QGIS and she specialises in the area of air quality, climate and sustainability.
Leo Williams	Noise and Vibration Assessment	AWN Consulting	Leo Williams- BAI MAI PgDip MIOA • Senior Acoustic Consultant • Member of Institute of Acoustics (MIOA) • 6 years' experience as an environmental consultant specialising in Acoustics and Environmental Impact Assessment.
Richard Barker	Landscape and Visual Assessment	Macroworks	MLA, PG Dip (Forestry), BA (Environmental) • Principal Landscape Architect • Corporate member ILI • Over 23 years' experience in LVIA
Faith Bailey	Cultural Heritage, Archaeology Assessment	IAC	Faith Bailey- MA, BA (Hons), MIAI, MCIfA • Associate Director with IAC Ltd. • 18 years' experience in archaeological and cultural heritage consultancy, responsible for the production of EIAR and assessments for all aspects of development nationwide.
Dr John Olley	Historic Landscape Assessment	Historic Landscape Assessment	Dr John Olley – BEng (Sheffield), PhD (Cambridge) • Emeritus Associate Professor of Architecture and Landscape, UCD • Over 40 years in the research and critical appraisal of landscape, architecture and urbanism; • Over 20 years experience of the production of Historic Landscape Assessments.



Ciarán Mullarkey & Karl Pedersen	Architectural Heritage	Mullarkey Pedersen Architects	Ciarán Mullarkey • Qualified in 2000- RIAI Part III at University College Dublin • Qualified in 1992 - Dip Architecture, with Distinction - Edinburgh University • Qualified in 1991 - MA (Hons) Architecture - Edinburgh University • 2006 – Member of the Royal Institute of the Architects of Ireland (Membership No. 06132) • 2012 – RIAI Conservation Architect Grade III- 30 years' experience Karl Pedersen • Qualified in 1989 Bachelor of Science in Architecture – University of Dundee • Qualified in 1992 First Class Bachelor of Architecture (Hons) – University of Dundee • Qualified in 1993 RIBA Part III – Professional Practice – University of Dundee • 1993 Architects' Registration Board No. 059423G • 2006 Royal Institute of the Architects of Ireland No. 06198 • 2010 RIAI Grade 1 Conservation Architect- 30 years' experience
Dr Liam Harrington	Microclimate - wind	Metec	Dr Liam Harrington- BSc Hons (Physics) MSc Energy Systems PhD Computer Modelling, A Computational Fluid Dynamics and Building Physics Consultant with over 25 years experience in computer modelling in the fields of Computational Fluid Dynamics, Dynamic Thermal Simulation and Lighting.
Maurice Ramsey	Microclimate - wind	Metec	Maurice Ramsey - BA, BAI, MSc, CEng MIEI, FConSEI, • Director of Metec Consulting Engineers has contributed the outline of the available MEP



			utilities on the site and has detailed all identified risks associated with these services. • Holds a Bachelor's Degree in Mathematics, a Bachelor's Degree in Engineering and a Master's Degree in Engineering. • Chartered Engineer (Engineers Ireland) 2003 • F Cons EI (Association of Consulting Engineers of Ireland) 2021 • Holds over 25 years of experience within in the consultancy side of the construction industry in Ireland. He has been involved in the preparation of EIAR documents for over fifteen years and is particularly familiar with the area in and around Dublin where many of his projects are located.
Eoin Catháin	Ó	Traffic and Transport Assessment	ROD Eoin Ó Catháin- Chartered Engineer (CEng MIEI) • Partner and Technical Director in ROD • Qualified as a Civil Engineer (BEng.) from University College Dublin (UCD) in 2004. • Holds a post graduate qualification in Transport and Environmental Engineering (MSc 2006, Trinity College Dublin; • Construction Law and Contract Administration, (PostGrad Dip, TCD, 2013); • Health and Safety (PostGrad Dip, TCD, 2020). • Holds 18+ years of experience in traffic and transport engineering and planning. • Registered Consulting Engineer (RConsEI), • Member of the Chartered Institute of Arbitrators (MCI Arb) and a graduate member of the Institute of Occupational Safety and Health (GradIOSH).



Chonail Bradley and David Doran	Waste Management	AWN Consulting	Chonail Bradley- BScEnv AssocMCIWM - Principal Environmental Consultant - Associate Member of the Chartered Institute of Waste Management - Over 7 years' experience in EIA, Environmental reporting and Waste Management David Doran- MSc in Environmental and Energy Management - Environmental Consultant with 1.5 years' experience in the Environment Team at AWN. - Holds a MSc in Environmental and Energy Management and is an Affiliate Member of CIWM
Dr Liam Harrington	Microclimate - wind	Metec	Dr Liam Harrington- BSc Hons (Physics) MSc Energy Systems PhD Computer Modelling, A Computational Fluid Dynamics and Building Physics Consultant with over 25 years experience in computer modelling in the fields of Computational Fluid Dynamics, Dynamic Thermal Simulation and Lighting.
Maurice Ramsey	Material Assets- Built Services	Metec	Maurice Ramsey - BA, BAI, MSc, CEng MIEI, FConsEI, - Director of Metec Consulting Engineers has contributed the outline of the available MEP utilities on the site and has detailed all identified risks associated with these services. - Holds a Bachelor's Degree in Mathematics, a Bachelor's Degree in Engineering and a Master's Degree in Engineering. - Chartered Engineer (Engineers Ireland) 2003 - F Cons EI (Association of Consulting Engineers of Ireland) 2021 - Holds over 25 years of experience within in the consultancy side of the construction industry in Ireland. He has been involved in the preparation of EIAR documents for over fifteen years



			and is particularly familiar with the area in and around Dublin where many of his projects are located.
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