



Volume 1

EIAR Non-Technical Summary

FOR

11-MAR-22 FWZZA/0047
FINGAL CO.CO. PLDEPT

Mixed-Use Development

AT

**Site B (Library Car Park) and Site C (Blue Car Park) sites
at Road C and Road D, Blanchardstown Town Centre,
Coolmine, Dublin 15**

March 2022

ON BEHALF OF

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1 INTRODUCTION

This Environmental Impact Assessment Report (**EIAR**) has been commissioned by the applicant, Blanche Retail Nominee Limited, in respect of an application for a mixed-use development at Blanchardstown Town Centre.

An Environmental Impact Assessment Report (EIAR) is an assessment and analysis of potential impacts on the receiving environment that may arise as a result of the Proposed Development. An EIAR is required to accompany a planning application for development of a class set out in Schedule 5, Part 1 of the Planning and Development Regulations which exceeds a limit, quantity or threshold set for that class of development.

Schedule 5, Part 2 of the Planning Regulations defines projects that are assessed on the basis of set mandatory thresholds for each of the project classes including:

Schedule 5, Part 2

10. Infrastructure projects

10. (b)(i) Construction of more than 500 dwelling units.

10 (b)(ii) Construction of a car-park providing more than 400 spaces, other than a car-park provided as part of, and incidental to the primary purpose of, a development.

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 Proposed Development is located in an Urban Area. The overall site area is 2.55 hectares which exceeds the 2-hectare threshold. Therefore, an EIAR is required for this application.

In assessing the environmental impacts, this EIAR will evaluate the existing situation and assess any potential impacts of the Proposed Development. Where potential impacts are identified, mitigation measures will be proposed. In addition, the in-combination effects of any other known plans or projects will be identified and assessed.

This Non-Technical Summary (NTS) describes the Proposed Development, the Environmental Impact Assessment (EIA) process and summarises the key environmental impacts arising from each of the environmental assessments carried out by a panel of experts in accordance with best practice. The environmental assessments involved desktop studies, site visits, surveys, and site-specific investigations. The NTS also outlines the mitigation and monitoring measures proposed along with a list of any residual impacts that may occur from the Proposed Development.

1.1 Planning and Policy

The planning and policy context gives an overview of the relevant legislation that supports the Proposed Development at a local, regional and national level, and sets out the strategic and

statutory context governing the planning and development of the Proposed Development. The Proposed Development complies with the stated and statutory requirements of Fingal County Council (FCC) with respect to planning and sustainable development. The relevant local planning policy with which the Proposed Development complies primarily comprises the Fingal County Development Plan 2017-2023.

2 OVERVIEW OF THE PROPOSED DEVELOPMENT

2.1 Operational Phase

The Applicant is seeking permission to develop a mixed-use development which consists of the construction of 352 no. apartments (comprising 44 no. studios, 132 no. 1 bed apartments, 155 no. 2 bed apartments, and 21 no. 3 bed apartments) and ancillary resident amenity floorspace, 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11- Gym or Restaurant / Café use, including ancillary takeaway use), and 1 no. community facility, in six no. buildings (Blocks A, B, C, D, J and K), ranging from 5 no. to 13 no. storeys in height. The development includes for an extension of the existing multi storey car park from 4 no. levels to 6 no. levels and associated alterations to the existing multi storey car park to facilitate the development. Blocks J and K are proposed on the Library Car Park site (Site B) and Blocks A, B, C and D are located on the Blue Car Park site (Site C).

The construction of 2 no. additional levels (increasing from 4 no. levels to 6 no. levels) on the existing multi storey car park (located in the Blue Car Park) to provide replacement car parking for the surface car parking to be removed from the application site and associated car parking provision for the Blocks A, B, C, D, J and K. The proposals include a new entrance, reconfiguration of parking spaces and internal circulation routes, provision of cores and associated alterations to the existing multi storey car park. The proposal also includes new walls and elevations treatment and to the south and east elevations of the existing car park to facilitate the adjacent residential blocks. Surface parking spaces are provided adjacent to Block A and adjacent to Block K and car parking spaces are also provided in an undercroft floor level within Blocks J and K to serve the residential units within those blocks.

The proposal includes road, pedestrian and cycle upgrades and associated alterations to the road infrastructure within the application site boundary. The proposal includes vehicular accesses, a loading bay, and new road infrastructure adjacent to Block J and K up to the site boundary.

Provision of telecommunications infrastructure at roof level comprising of 6 no. 0.3m microwave link dishes enclosed within GRP radio friendly shrouds, mounted on 3 no. steel support poles (2m in height above the lift shaft overrun) together with all associated equipment.

The Proposed Development includes public open space, communal courtyards and external roof terraces, landscaping and public realm improvements, cycle parking, 2 no. ESB substations and associated switchrooms, bin stores and plant rooms, green roofs and PV panels at roof level. The associated site and infrastructural works include site clearance and excavation, provision of utilities and associated civil works, foul and surface water drainage and public lighting, along with all ancillary works.

The application seeks a seven-year permission for the Proposed Development. This is considered appropriate given the scale and nature of the Proposed Development, the town centre environment, and the associated complexities of construction in this location. However, it is intended to commence and complete construction in a timely manner, with the duration of construction approximately 24 to 30 months.

The Operational Phase of the Proposed Development will consist of the normal day-to-day operations necessary for the management of multistorey car parks, retail space, such as offices, a gym or food outlets, and the ongoing maintenance of residential units and public and communal amenity space.

2.2 Construction Phase

The duration of the Construction Phase of the Proposed Development will be approximately 24 to 30 months. The Construction Phase will include all necessary site clearance and preparation work, site development and construction. The Construction Phase will involve the excavation of soil and bedrock for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works.

3 SITE DESCRIPTION

The Site of the Proposed Development, with an area of 2.55 ha, incorporates the existing surface car park (known as the Library Car Park) to the southeast of the Blanchardstown Library and offices, the multi storey car park site (known as the Blue Car Park) located to the southeast corner adjoining the Blanchardstown Centre, a section of Road C and Road D and the associated roundabout junction, verges and footpaths. Blanchardstown Town Centre is located approximately 10km north-west of Dublin City Centre and approximately 1km north of the village of Blanchardstown. The Site is surrounded by commercial uses, with residential lands ca. 160m to the south and amenity lands immediately to the west (Major Town Centre zoned lands occupied by playing pitches), while the N3 Blanchardstown Bypass is located ca. 336m to the north-east of the Site.

Blanchardstown Town Centre is zoned 'MC – Major Town Centre' under the Fingal Development Plan 2017-2023. The objective of the MC zoning is to 'protect, provide for and/or improve major town centre facilities' through the future development of these centres by densification of appropriate commercial and residential developments.

The location of the Site of the Proposed Development is presented in Figure 1 and Figure 2 below.

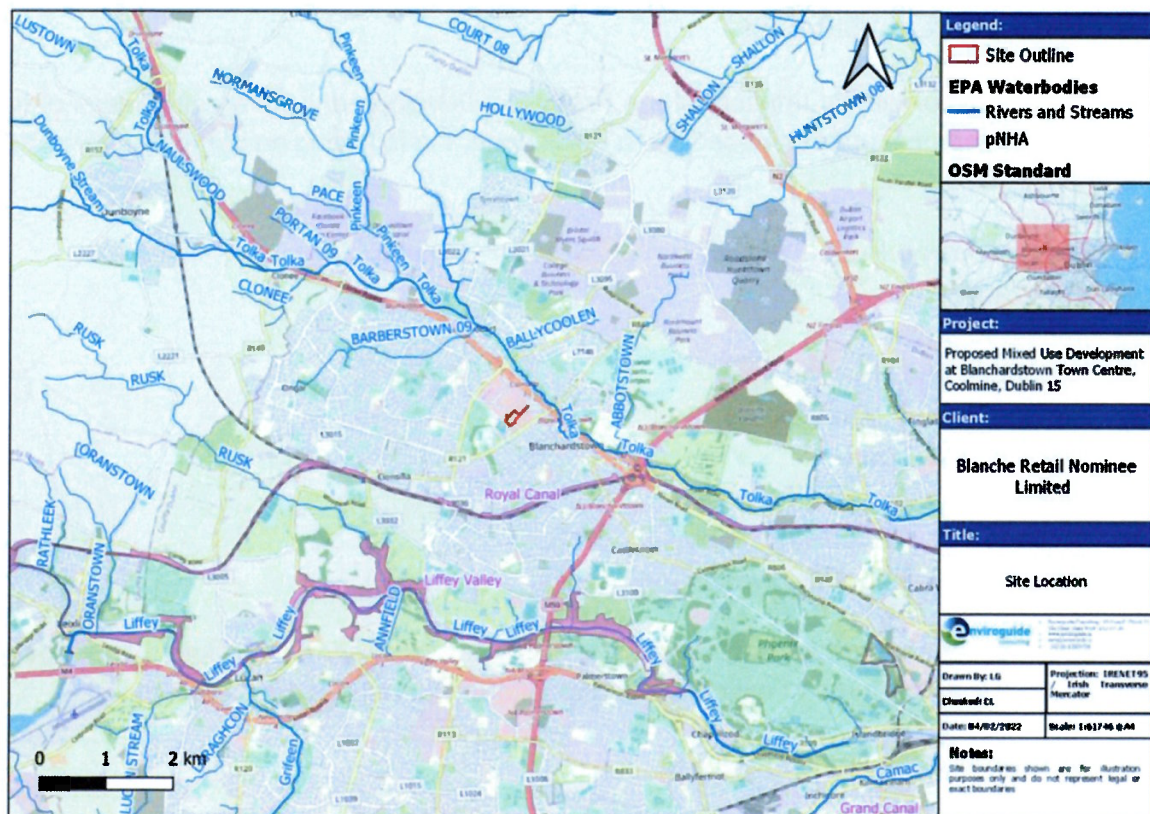


Figure 1 Location of the Proposed Development



Figure 2 Proposed Site Layout

4 ENVIRONMENTAL IMPACTS

The potential Environmental Impacts of the Proposed Development during all phases of the Proposed Development are addressed in the EIAR under the following headings as prescribed under the EIA Directive:

- Population and Human Health
- Biodiversity
- Land and Soils
- Hydrology and Hydrogeology
- Air Quality and Climate
- Noise and Vibration
- Landscape and Visual Amenity
- Archaeology and Cultural Heritage
- Material Assets: Traffic, Waste and Utilities

Additionally, risk management and interactions between environmental factors have been examined, and a programme of mitigation and monitoring measures has been set out.

4.1 Population and Human Health

'Population and Human Health' looks at the potential effects of the Proposed Development on human beings, living, working and visiting in the vicinity of the application site at Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. This assessment focuses on the socio-economic impacts and is focused in particular on relevant issues such as residential amenity, economic activity, tourism and population levels. One of the principle concerns in any Proposed Development is that the local population experiences no reduction in the quality of life as a result of the development on either a permanent or temporary basis.

A desk-based study was undertaken in February 2022. Data from the Central Statistics Office (CSO) was reviewed in-depth to assess information regarding population, age structure, economic activity, employment and unemployment within the vicinity of the Proposed Development. Relevant legislation and published documents were also assessed. The aim of the study was to assess the positive and negative impacts of the Proposed Development on the socio-economic environment.

The study finds that the Proposed Development will have a positive effect on the economic activity. The Proposed Development will generate economic activity in the locality during the construction period, which is anticipated to extend over a period of approximately 24-30 months. The Proposed Development will result in the direct creation of up to 450 construction personnel and approximately 50 additional jobs. Indirect employment will also be created as a result of the Proposed Development at nearby retail shops, cafes & restaurants and service providers.

Employment and income are among the most significant determinants of long-term health. Therefore, the Proposed Development has the potential to provide health improvements due to the creation of additional employment which will be a positive effect for the local area and

will provide a slight positive impact both directly and indirectly to the local economy and employment.

During the Construction Phase of this Proposed Development HSE guidelines will be adhered to in relation to COVID-19.

The impact from the construction works is considered to be negligible. If all COVID-19 safety protocols and hygiene measures are adhered to it is considered that the development poses no additional COVID-19 risk.

The Construction Phase of the development will potentially cause some additional noise, mobility of heavy vehicles, dust and the arrival and departure of construction workers into the area. The impact will have a direct impact on the surrounding population. The impacts of the Construction Phase will be short term and will only last for the duration of the construction works. Construction Phase mitigation measures will be put in place to ensure that any negative impacts identified be reduced or to prevented.

The Operational Phase of the Proposed Development will have a positive impact on population and human health. The increased population of the area is a positive and long-term impact, and it will ensure the continued viability of the public transport services, provision of services, local businesses such as shops, restaurants, services (e.g. hairdressing), hostelry retail. It will also support parks and schools. The Operational Phase will also have a positive impact on employment with direct employment being created by the inclusion of a retail / commercial units within the Proposed Development.

The Proposed Development seeks to develop a high-quality setting, public realm improvements and open space strategy. This will include a pocket park, public amenity space and a public plaza. Additional public realm improvements to the streetscape and landscaping buffer areas are also proposed across the remainder of the site. Therefore, during the operational stage, it is considered that the Proposed Development will have slight positive and long-term landscape or visual impacts.

For the Operational Phase, no likely negative impacts have been identified for population, or land use, accordingly no mitigation measures are required for the Operational Phase.

The Proposed Development will provide residential accommodation which will provide an enhanced choice of tenure in the area, affording greater flexibility to those who may be seeking to rent an apartment in the area or looking to purchase a dwelling. This will have a long-term positive impact on population due to the provision of a wide range of dwelling unit types and will cater for a wide cohort of persons. The Proposed Development will be a positive effect for the local area and will provide a significant positive impact to the overall economy of the local area through indirect socio-economic benefits to local services including local shops, service stations, cafes and restaurants.

The Proposed Development has been designed to facilitate potential for future public use by incorporating landscaping and public realm improvements, particularly having regard to the attractive and high-quality public and communal open space provided, with, vehicular accesses and new road infrastructure in addition to pathways for pedestrians and cyclists to utilise.

4.2 Biodiversity

This chapter details an ecological impact assessment of the Proposed Development at Site B (Library Car Park) and Site C (Blue Car Park), sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15. It provides a description of the existing ecology of the Site in terms of the habitats, flora and fauna that are, or may be, present at the Site, informed by a series of surveys including bird surveys, mammal surveys and habitat and flora surveys. The potential for the Proposed Development to impact on nearby designated sites is also considered.

The existing habitats at the Site are largely of low ecological value e.g., hard standing (tarmacadam etc.), as it is made up of two areas of carparking and sections of roadway. Habitats are limited to these hardstanding areas and their associated ornamental planting, although a treeline along the western Site boundary provides some more natural vegetation. No rare flora were recorded at the Site. Non-native and invasive Cherry Laurel is present in the form of planted hedging in the Site B carpark.

Due to the highly man-made nature and low biodiversity value of the Site i.e., well-lit hardstanding car parking areas with minimal, largely ornamental tree planting, the Site was considered of low to no value for bats and a bat activity survey was not deemed necessary. There are no mature trees of note present at the Site and the only native treeline, present (along the Site's western boundary), is largely being retained in the project design. Potential impacts to bats due to the Proposed Development are associated with increased night-time lighting at the Site, or injury/death if roosting in a tree that is felled. Bat friendly lighting has been incorporated into the design, and pre-felling surveys will be carried out at any potential roost tree marked to be felled.

Bird activity was low with all species recorded fairly common in nature. Although the bird survey was carried out outside of the breeding season, it is deemed that sufficient data was collected to make an informed assessment of the likely impacts to birds at the Site, due to the low ecological value of the Site and its general absence of suitable habitat. Potential bird-related impacts are associated with vegetation removal during the nesting season, loss of habitat and noise disturbance. Bird collisions with the proposed buildings are not likely to occur, due to the height of the buildings and the dispersed nature of their glazed components. Vegetation clearance will be carried out outside of the nesting season and noise mitigation will be adhered to during construction works.

Mammal surveys recorded no signs of mammal usage as would be expected from such as Site. No signs of badger or Otter were recorded at the Site, with no suitable habitat for either present. No amphibian breeding habitat (pool, ponds etc.) were present at the Site. A set of mitigation measures have been recommended as best-practise to avoid any impacts to mammals.

Four designated sites have an indirect link to the Proposed Development i.e., via the River Tolka that receives surface water from the Blanchardstown Centre, and through waste water to be treated at Ringsend WWTP. These sites are the North Dublin Bay proposed Natural Heritage Area (pNHA), the North Bull Island Special Protection Area (SPA), the North Dublin Bay Special Area of Conservation (SAC) and the South Dublin Bay and River Tolka Estuary SPA. These hydrological connections provide a potential impact pathway from the Site to these designated sites. Potential sources of pollution at the Site include sediment generated during the Construction Phase and contaminated surface water run off during the lifetime of

the finished development. However, there is no likelihood of significant effects on designated sites located within Dublin Bay; due to the intervening distance involved and the capacity for dilution within the receiving drainage network, the Tolka River, and Dublin Bay itself (see the Appropriate Assessment Screening Report for more detail). To prevent any impacts to the River Tolka itself and associated fish species, measures will be put in place to prevent any pollution of storm drains during the construction works, and surface water produced at the Site once the development is operational will be treated via Sustainable Urban Drainage Systems (SUDS) before being discharged to the surface water sewer network.

Provided all mitigation measures are implemented in full and remain effective throughout the lifetime of the Development, no significant negative impacts on the local ecology or on any designated nature conservation sites are expected from the Proposed Development.

4.3 Land and Soil

An assessment of the potential impact on the existing land, soils and geological environment was carried out by Enviroguide Consulting for the Proposed Development Site.

The assessment was carried out taking cognisance of appropriate national guidelines and standards for Environmental Impact Assessment using data collected from a detailed desk study, a site walkover survey, an intrusive site investigation (including trial pit excavations, borehole drilling, soil sampling, laboratory analysis of soil samples and groundwater level monitoring) undertaken by IGSL Limited and review of all relevant drawings and documents pertaining to the Proposed Development. The results of the assessment provided information on the baseline conditions at the Proposed Development Site. A detailed assessment of the potential impacts was undertaken, and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact associated with the Proposed Development.

Blanche Retail Nominee Limited intend to apply Fingal County Council for permission for the construction of a mixed-use development located at the Site B (Library Car Park) and Site C (Blue Car Park) sites at Road C and Road D, Blanchardstown Town Centre, Coolmine, Dublin 15.

The Proposed Development comprises of 352 apartments with ancillary resident amenity floorspace, five (5No.) commercial unit and one (1No.) community facility in six (6No.) buildings ranging from 5-13 storeys in height. The Proposed Development includes alterations to the existing multi-storey carpark at Site C from four (4No.) to six (6No.) levels, provision of an undercroft car parking area at Site B, public and communal open space, landscaping and public realm improvements and associated site and infrastructural works.

There is no basement and only foundations and services will be below ground level.

The Proposed Development will involve excavation of soil and bedrock during the Construction Phase to depths of up to 4.0mbGL for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works. It is estimated by DBFL Consulting Engineers that 1,000m³ of asphalt surfacing, 9,700m³ of soil and stone and 250m³ of bedrock will be excavated during the construction of the Proposed Development.

It is estimated by DBFL Consulting Engineers that a surplus of 7,450m³ of soil and bedrock arising from groundworks will require off-site removal for reuse or recovery in accordance with appropriate statutory consents and approvals.

The importation of up to approximately 5,000m³ of aggregate fill materials be required for the construction of the Proposed Development (e.g., granular material beneath road pavement, under floor slabs, for drainage and utility bedding / surrounds and Construction Phase haul routes etc.).

The appointed Contractor will review and update, as necessary the Construction Environmental Management Plan (CEMP) to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the CEMP, CDWMP and relevant industry standards (e.g., Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

All works during the Construction Phase of the Proposed Development will be undertaken in accordance with the requirements of the CEMP and CDWMP.

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available on-site including in vehicles operating on-site. Construction staff will be familiar with emergency procedures for in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

There will be no excavation of soil or bedrock or infilling of waste during the Operational Phase of the Proposed Development.

There will be no significant adverse impacts on, or associated with the land, soils and geology attributed to the Proposed Development.

The Proposed Development will have an overall 'imperceptible' impact on the receiving land, soil and geological environment. There will be a 'positive' and 'slight' impact on the soil quality associated with the excavation of made ground, including some soils impacted with low levels of anthropogenic contamination (i.e., petroleum hydrocarbons), and removal offsite during the Construction Phase of the Proposed Development. The potential impacts on the underlying soils are unavoidable, however the Proposed Development is permitted in principle under the current 'MC' Major Town Centre Technology zoning objective.

4.4 Hydrology and Hydrogeology

An assessment of the potential impact on the existing hydrological (surface water) and hydrogeological (groundwater) environment was carried out by Enviroguide Consulting for the Proposed Development Site.

The assessment was carried out taking cognisance of appropriate national guidelines and standards for Environmental Impact Assessment using data collected from a detailed desk study, a site walkover survey, an intrusive site investigation (including trial pit excavations, borehole drilling, soil sampling, laboratory analysis of soil samples and groundwater level monitoring) undertaken by IGSL Limited and review of all relevant drawings and documents

pertaining to the Proposed Development. The results of the assessment provided information on the baseline conditions at the Proposed Development Site. A detailed assessment of the potential impacts was undertaken, and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact associated with the Proposed Development.

The Proposed Development will involve excavation of soil and bedrock during the Construction Phase to depths of up to 4.0mbGL for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works. It is estimated by DBFL Consulting Engineers that 1,000m³ of asphalt surfacing, 9,700m³ of soil and stone and 250m³ of bedrock will be excavated during the construction of the Proposed Development.

The appointed Contractor will review and update the Construction Environmental Management Plan (CEMP), as necessary, to provide detailed construction phasing and methods to manage and prevent any potential emissions to ground having regard to the CEMP, CDWMP and relevant industry standards (e.g. Guidance for Consultants and Contractors, CIRIA - C532', CIRIA, 2001).

All works during the Construction Phase of the Proposed Development will be undertaken in accordance with the requirements of the CEMP and CDWMP.

It is anticipated that there may be a requirement for local groundwater dewatering from trench exactions during the construction of foundations and utility infrastructure (i.e., attenuation tank, storm / foul water drainage) at the Proposed Development Site. Any groundwater removed will be discharged into the public sewer in accordance with all statutory requirements and obligations.

There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground, drains or water courses during the Construction Phase of the Proposed Development.

A monitoring programme will be implemented to ensure that water quality criteria set out in the discharge licence are achieved prior to discharging to the sewer.

Emergency procedures will be developed by the appointed Contractor in advance of works commencing and spillage kits will be available on-site including in vehicles operating on-site. Construction staff will be familiar with emergency procedures for in the event of accidental fuel spillages. Remedial action will be immediately implemented to address any potential impacts in accordance with industry standards and legislative requirements.

The surface water drainage for the Proposed Development has been designed in accordance the Greater Dublin Strategic Drainage Strategy (GDSDS) as specified in the Infrastructure Design Report (DBFL Consulting Engineers, February 2022c).

Surface water runoff from the existing multistorey carpark in the north of the Proposed Development Site, including the proposed additional two (2No.) levels of carparking, will continue to be discharged to the existing surface water drainage network for the Blanchardstown Town Centre via the existing full retention fuel / oil separator.

A new surface water drainage system for the Proposed Development will be constructed to collect runoff from all remaining impermeable surfaces, together with any additional runoff from landscaped areas that do not percolate to ground. The attenuated surface water will discharge to the existing surface water drainage network for the Blanchardstown Town Centre via full retention fuel / oil separators.

The existing surface water drainage network for the Blanchardstown Town Centre will continue to discharge to the River Tolka located approximately 0.27km north of the Proposed Development Site.

The proposed surface water management strategy incorporates a number of measures incorporated in the overall drainage design including green roofs / blue roofs, permeable paving, bioretention areas, road gullies draining via tree pits, Hydrobrake flow control device / associated attenuation storage and full retention fuel / oil separators that will contribute to treatment of water quality through removal of metal, hydrocarbon and suspended solids that may be entrained in surface water runoff at the Proposed Development Site. It is considered that the SUDS drainage scheme for the Proposed Development will result in an overall positive impact on receiving surface water quality.

Overall, there will be no significant adverse impacts as a result of the Proposed Development on the receiving groundwater and surface water environment. The Proposed Development will have an overall 'imperceptible' impact on the receiving hydrological and hydrogeological environment.

4.5 Air Quality and Climate

This chapter examines the potential for the Proposed Development to impact upon air quality and climate within the vicinity of the Proposed Development Site. This chapter also describes and assesses the impact of the Proposed Development on local climate and on global climate in a wider context.

The primary sources of dust identified during the Construction Phase of the Proposed Development include soil excavation works, demolition, bulk material transportation, loading and unloading, stockpiling materials, cutting and filling, and vehicular movements (HGVs and on-site machinery).

According to Transport Infrastructure Ireland guidelines (TII, 2011), it is difficult to accurately quantify dust emissions arising from construction activities. Therefore, it is not possible to easily predict changes to dust soiling rates or particulate matter (PM₁₀) concentrations. TII recommend a semi-quantitative approach to determine the likelihood of significant impact in this instance. This should also be combined with an assessment of the proposed mitigation measures. The majority of receptors in the vicinity of the Site are of a commercial nature and would be considered medium-sensitivity receptors. There are no high-sensitivity receptors located within 50m of the Site boundary; therefore, significant construction-related impacts are not expected to arise in this instance. Appropriate mitigation measures have been recommended and will be implemented at the Site in order to minimise the risk of dust emissions arising during the Construction Phase. These mitigation measures have been outlined in the Construction Environmental Management Plan (CEMP) (DBFL Consulting

Engineers) for the Site, and provided such measures are adhered to, it is not considered that significant air quality impacts will occur.

Construction vehicles and machinery during this phase will temporarily and intermittently generate exhaust fumes and consequently potential emissions of volatile organic compounds, nitrogen oxides, sulphur oxides, and particulate matter (dust). Dust emissions associated with vehicular movements are largely due to the resuspension of particulate materials from ground disturbance. According to the Institute of Air Quality Management (IAQM, 2014), experience from the assessment of exhaust emissions from on-site machinery and Site traffic suggests that they are unlikely to make a significant impact on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed. Air pollutants may increase marginally due to construction-related traffic and machinery from the Proposed Development; however, any such increase is not considered significant and will be well within relevant ambient air quality standards. According to the Traffic and Transport Assessment for the Proposed Development (Clifton Scannell Emerson Associates), traffic-related impacts during the Construction Phase are expected to be short-term, negative, and insignificant, and it is not anticipated that a significant residual impact will occur.

There is the potential for combustion emissions from onsite machinery and traffic derived pollutants of Carbon Dioxide (CO₂) and Nitrous Oxide (N₂O) to be emitted during the Construction Phase of the development. However, due to the size and duration of the Construction Phase, and the mitigation measures proposed, the effect on national greenhouse gas (GHG) emissions will be insignificant in terms of Ireland's obligations under the Kyoto Protocol and therefore will have no considerable impact on climate. Overall, climatic impacts are considered to be short-term and imperceptible.

Operational traffic will use local roads to access the facility with potential increases of traffic flow on some roads and subsequent associated emissions of Volatile Organic Compounds (VOCs), nitrogen oxides, sulphur dioxides and increased particulate matter concentrations. Predicted levels of operational traffic as a result of the Proposed Development do not meet the indicative criteria for requiring an air quality assessment; it is therefore considered unlikely for significant air quality impacts to occur as a result of increased traffic flow, and an associated air quality assessment is not required.

Increased Light Duty Vehicle (Car & Van) traffic flow as a result of the Proposed Development is likely to contribute to increases in GHG emissions such as CO₂ and N₂O. However, due to the predicted minimal change in traffic, these contributions are likely to be marginal in terms of overall national GHG emission estimates and Ireland's obligations under the Kyoto Protocol, and therefore unlikely to have an adverse effect on climate.

The Proposed Development aims to reduce energy usage and carbon emissions by exploring sustainable design options and energy efficient systems that are technically, environmentally, and economically feasible for the project.

Nearly Zero Energy Building (NZEB) means a building that has a very high energy performance and is designed to nearly zero or very low amount of energy required to be covered by energy from renewable sources produced on-site or nearby. An NZEB Part L Planning Report has been prepared by Axiseng Consulting Engineers. With consideration to the EU energy performance of Buildings Directive (EPBD), the Building Regulations Technical

Guidance Document, Part L (NZEB), and Dublin Local Authorities strategy for sustainable design and reductions in energy and carbon emissions. The Report demonstrates that the proposed strategy will meet the energy and sustainability targets for this development by outlining different measures taken through passive and active elements, which have been designed to reduce energy, carbon emissions, and cost throughout the building's lifecycle.

4.6 Noise and Vibration

The likely noise and vibration impacts associated with the Proposed Development have been evaluated, and changes that are likely to impact the surrounding environs have been considered.

The primary noise impacts associated with this Proposed Development is noise due to construction activities and vehicular traffic.

For the duration of the proposed infrastructure works, typical working hours will be 07:00 to 19:00 Monday to Friday (excluding bank holidays) and 09:00 to 13:00 Saturdays. Based on a review of the guidance documents and the baseline noise environment, the following daytime noise criteria are recommended for the Proposed Development Site:

Table 1 Recommended Noise Limit Criteria

Parameter	Emission Standard	Basis of Standard
Monday to Friday (07.00 to 19.00 hours)	<70 dB(A) L_{Aeq} (1 hour)	BS 5228-1; Transport Infrastructure Ireland (TII)
Saturday (09.00 to 13.00)	<65 dB(A) L_{Aeq} (1 hour)	

The nearest noise sensitive locations are residential properties which are located approximately 190m from the Proposed Development Site Boundary. Noise prediction calculations have been completed for noise from the use of onsite plant up to 600m from the source using the inverse square law. According to the inverse square law, for each doubling of distance from a point source, the sound pressure level decreases by approximately 6 dB.

The predicted noise levels at 190m from the proposed activities are well within the recommended daytime noise levels of 70 dB(A) and 65 dB(A).

During the works the contractor will comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration and the practices outlined within the Construction Environmental Management Plan (CEMP), will be implemented during the Construction Phase.

No traffic routes are predicted to experience increases of more than 25% in total traffic flows during the Operational Phase and therefore no detailed assessment is required as per the Design Manual for Roads and Bridges (DMRB) Guidelines.

4.7 Landscape and Visual

The purpose of the landscape assessment is to evaluate the existing landscape character of the Site and surroundings, to assess the visual impact of the Proposed Development and to identify landscape designations and planning policies that may concern the subject Site and its environs.

As part of the assessment, a Zone of Theoretical Visibility drawing was prepared. The term Zone of Theoretical Visibility (ZTV) is used to describe the area over which a development can theoretically be seen. The ZTV used in this report is produced using software from VU.City. The ZTV was used to select the locations of the verified images which form the basis of the Photo Montage Report that was prepared by Visual Labs. The ZTV does not take into account screening from vegetation. Verified images taken at the identified locations have determined that the Proposed Development is not visible at those locations due to screening from vegetation.

There is a zoned High Amenity area – Tolka Valley, directly to the north/northeast of the site. Users of outdoor recreational facilities, in locally designated landscapes or on local recreational routes are generally accepted as having a high to medium visual sensitivity. Due to the distance from the Proposed Development to this land, the existing boundary vegetation of the zoned land, the existing and proposed boundary landscaping, the existing buildings located to the north and northeast of the site and the high likelihood that any potential users views within these zoned lands will be orientated away from the development and along the river, it is reasonable to assume there will be no/infrequent views of the Proposed Development from this area.

There are no protected structures within the study area.

There is a historic hedgerow located at the western boundary of the Proposed Development. Hedges are important heritage features. Varying greatly in form and species, they help to form the local and regional character of the landscape. It is recognised that ancient hedges are survivors of the woods that covered the country before it became agricultural land, therefore they have a particular conservation value as they often contain a richer variety of plant life than more recent hedges.

It is proposed that the hedgerow will be maintained and conserved in line with current Guidelines to protect the value of this protected feature. Mitigation measures are proposed to ensure the trees and hedgerows are fully protected in accordance with 'BS5837 (2012) Trees in relation to the Design, Demolition and Construction – Recommendations'. The historic hedgerow will be maintained as much as possible as per the Landscape Plan by Cameo & Partners Design Studio and the Tree Survey Report prepared by Enviroguide Consulting.

It is concluded that the Proposed Development will have a minor to negligible, negative and short-term impact on the landscape character of the Site during the Construction Phase. It is not expected that the Operational Phase of the Proposed Development will cause any negative impact. The potential landscape impacts will be neutral and long-term as a result of the Proposed Development. It is considered, in the context of the Development Plan zoning, the Proposed Development is a continuation of existing trends in the local area.

In conclusion, it is considered that the Proposed development is consistent with the landscape policy context as set out in the Building Height Guidelines 2018 and the Fingal County Council

Development Plan. The Proposed Development is appropriate to the area and the design and the proposed mitigation measures successfully address potential adverse impacts. The proposed development has been designed to take account of the existing surrounding area, it is considered that due to the already urban nature of the Site of the Proposed Development, as well as the landscaping proposals, there will be a positive contribution to the landscape and visual impact.

4.8 Archaeology and Cultural Heritage

An assessment of the baseline Archaeological, Architectural and Cultural Heritage conditions of the surrounding environment for the Proposed Development was completed, in order to determine any significant impacts that may arise as a result of the development and highlight any potential effects this may have on these resources.

The assessment involved a desktop study / paper survey which considered all available archaeological, architectural, historical and cartographic sources. This information was used in order to assess any potential impact on the receiving environment and to identify measures to ensure the conservation of any monuments or features.

There are no records of any recorded monuments within the Site boundary of the Proposed Development. There are 15 No. recorded Monuments and Places within the 2km study area. These comprise 2 Churches (DU013-019001-, DU013-020001-), 2 Graveyards (DU013-019002-, DU013-020002-), 1 Mill – unclassified (DU013-035----), 2 Ringfort – unclassified (DU013-016----, DU013-015----), 2 House - 16th/17th century (DU013-025----, DU013-023----), 1 Mound (DU013-012----, DU013-014----), 1 Designated landscape – tree-ring (DU013-011---), 1 Fulacht fia (DU013-147----), 1 Ritual site – holy well (DU013-009----), 1 Enclosure (DU013-005----). The vegetation present on the southern boundary is typical of an historic hedgerow boundary. This hedgerow is visible on Historic 6 Inch (1837 – 1842) mapping indicating that it is historic and is of Cultural Heritage significance, providing landscape character to the site.

A search in the topographical files in the National Museum of Ireland produced no results for the development lands and surrounding areas. There are no features of architectural interest in the area of development.

It is possible that excavation works associated with the Proposed Development may have an adverse impact on small or isolated previously unrecorded archaeological features or deposits that have the potential to survive beneath the current ground level. If any archaeological remains are discovered during this project, all works will cease and an expert archaeologist will be brought to Site and all future works will be carried out under the supervision of the archaeologist. However, as the closest RMP site is located 0.6km from the Site, it is predicted that the Construction Phase of the development will not cause any significant impact on the Archaeology and Cultural Heritage of the area. In addition, it is proposed that the hedgerow on the southern boundary will be maintained and conserved in line with current Guidelines to protect the value of this protected feature. Mitigation measures are proposed to ensure the trees and hedgerows are fully protected in accordance with 'BS5837 (2012) Trees in relation to the Design, Demolition and Construction – Recommendations'. The historic hedgerow will be maintained as much as possible as per the Landscape Plan by Cameo & Partners Design Studio (February 2022) and the Tree Survey Report (Enviroguide Consulting, March 2022).

There will be no effects on the archaeological, architectural or cultural heritage of the area through development activities that may occur during the Operational Phase.

4.9 Material Assets: Traffic

Clifton Scannell Emerson Associates Limited (CSEA) was commissioned to prepare a Traffic and Transport Assessment (TTA) for a proposed mixed-use development at a site within Blanchardstown Town Centre, Coolmine, Dublin 15.

The development is a mixed use development of more than 200 dwellings, therefore a transport assessment is required. At present, Blanchardstown Shopping Centre is accessed via a total of 5 no. access points on R121 Blanchardstown Road South, R843 Snugborough Road, and the N3. Pedestrian access is available from most roads surrounding the site. Foot-paths are also available along the internal road network.

Traffic surveys were carried out in the network around the site on 28th November 2019. Traffic models have been developed to assess the development's impacts on the operation of the local road network. Modelling was undertaken for a Do-Nothing, Do-Something, Future and Horizon development scenarios.

Vehicular trip rates were estimated for the proposed development using TRICS database for 'Land Use 03 Residential/ Flats Privately Owned' and 'Land Use 01 - Retail/M – Mixed Shopping Malls'. The Proposed Development is predicted to generate an additional 636 no. trips a day, between the hours of 07:00 and 21:00 based on 352 no. apartment units and 700 sqm of retail.

The local road network will operate within capacity and at satisfactory levels during peak hours for all assessment scenarios and the junctions will continue to successfully accommodate all traffic. Therefore, the impact of the Proposed Development is considered long-term, neutral, and imperceptible. During the Construction Phase, the impact of the Proposed Development is expected to be short-term, negative, and not significant.

4.10 Material Assets: Utilities and Waste

This chapter of the EIAR provides an assessment of the potential impacts of the Proposed Development on Materials Assets or physical resources in the environment, including built services and infrastructure comprising local settlements, electricity, gas supply, telecommunications/ICT, surface water/stormwater drainage, water supply, the foul water network and waste management infrastructure.

The Construction Phase will be 24-30 months and will include all necessary site clearance and preparation work, site development and construction. The Construction Phase will involve the excavation of soil and bedrock for the construction of building foundations, carparking areas, access roads and filter drains, the surface / foul water drainage network and all ancillary works.

The Operational Phase of the Proposed Development will consist of the normal day-to-day operations necessary for the management of multistorey car parks, retail space, such as offices, a gym or food outlets, and the ongoing maintenance of residential units and public and communal amenity space.

Local resident and businesses may experience disturbance during the Construction Phase of the Proposed Development, however, due to the nature of the works, the impact is considered to be negative, non-significant and temporary. Once operational the Proposed Development will provide additional housing options to a densely populated area. The commercial and retail units in the Proposed Development, along with the maintenance and management of the development itself, will also create employment within the area. Hence, there will be a positive, major, permanent impact on local settlement as a result of the Proposed Development.

The Operational Phase of the Proposed Development will have a moderate impact on the electricity supply network as it will increase the demand on the existing supply in the long-term. The Client is committed to incorporating energy conservation measures as fundamental elements of the Proposed Development.

The Proposed Development does not rely on gas supply for any activities in either the Construction or Operational Phases, as such there will be no impacts on the existing gas supply in the area.

The Proposed Development will create a marginal increase on telecommunications/ICT demand in the local area. The Site of the Proposed Development is located in an area where highspeed broadband is available and there is strong mobile communication coverage from several providers. Additionally, the Proposed Development has been assessed in relation to the retention of important telecommunication channels, such as microwave links, and is compliant in this regard.

The Operational Phase of the Proposed Development will require new connections to the existing water (supply and foul) infrastructure and will discharge via an existing private foul network into to the main foul sewer. Upgrades to the private foul drainage network are required in order to facilitate the Proposed Development as the existing private foul drainage network in the immediate vicinity of the Site is at capacity. The design of the Proposed Development incorporates a number of SUDS measures, which, once operational, will result in an positive, slight, long-term impact on the quality of surface water drainage, and in turn, on the receiving surface water and groundwater quality.

All waste materials generated during the Construction Phase and Operational Phase of the Proposed Development will be managed in accordance with the Construction and Demolition Waste Management Plan (CDWMP) and the Operational Waste Management Plan (OWMP), respectively. All waste will be segregated at source and will be sent for recycling, recovery, or disposal to a suitably licensed or permitted waste facility, with a focus on diversion of waste from landfill wherever possible. The potential impact from the Operational Phase on municipal waste disposal is likely to be neutral, long-term and not significant.

The implementation of the Construction Environmental Management Plan, the CDWMP and the OWMP in conjunction with best environmental practice and appropriate management of the Proposed Development, will ensure that there are no significant adverse impacts to Material Assets as a result of the Proposed Development.

4.11 Risk Management

Risk is one of the most important elements to be considered as part of a development. It is critical that any project is screened against potential risks which it might encounter and/or

impose on the nearby environment during its Construction and Operational Phases. An assessment of the vulnerability of the Site of the Proposed Development to risks of major accidents and/or disasters was completed.

The assessment reviewed:

- The vulnerability of the project to major accidents or disasters.
- The potential for the project to cause risks to human health, cultural heritage and the environment, as a result of that identified vulnerability.

A methodology was used including the following phases:

- Phase 1 – assessing the hazards
- Phase 2 – screening the hazards
- Phase 3 – mitigating the hazards and evaluating the residual hazards

The risk assessment conducted for the Proposed Development at Blanchardstown Town Centre concludes that the vulnerability of the Proposed Development to major accidents and/or disasters is not considered significant; and the potential for the project to cause risks to human health, cultural heritage, and the environment, is not considered significant.

4.12 Interactions

Interrelationships between various environmental aspects must be considered when assessing the impact of the Proposed Development, as well as individual significant impacts. The significant impacts of the Proposed Development and the proposed mitigation measures have been detailed in the relevant chapters of this report. However, as with all developments that poses potential environmental impacts, there also exists potential for interactions/interrelationships between the impacts of different environmental aspects. The results may exacerbate or ameliorate the magnitude of impacts. This chapter of the EIAR addresses the interactions between the various environmental factors of the Proposed Development.

When considering interactions, the assessor has been vigilant in assessing pathways – direct and indirect – that can magnify effects through the interaction. In practice many impacts have slight or subtle interactions with other disciplines. However, the EIAR concludes that most inter-relationships are neutral in impact when the mitigation measures proposed are incorporated into the operation of the Proposed Development in line with the Waste Facility Permit for the site.

4.13 Mitigation and Monitoring Measures

This EIAR has assessed the impacts and effects likely to occur as a result of the Proposed Development on the various aspects of the receiving environment.

The Proposed Development will be operated in a manner that will ensure that the potential impacts on the receiving environment are avoided where possible. In cases where impacts or potential impacts have been identified, mitigation measures have been proposed to reduce the significance of specific impacts. These mitigation recommendations are contained within each chapter exploring specific environmental aspects.

